Instructions/Parts

Merkur™ Bellows AA and Airless Spray Packages

312799L

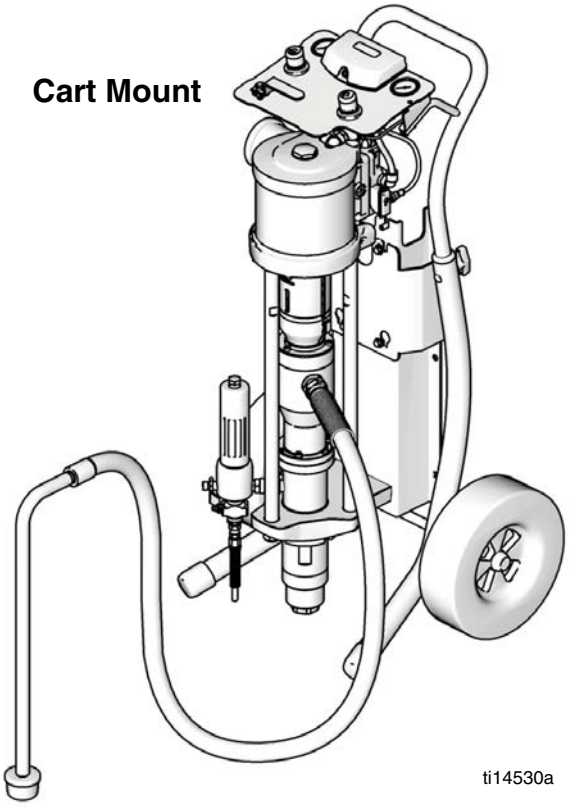
EN

Spray packages with a bellows seal for use with isocyanates, UV coatings and other moisture-sensitive materials. For professional use only.

Important Safety Instructions
Read all warnings and instructions in this manual.
Save these instructions.

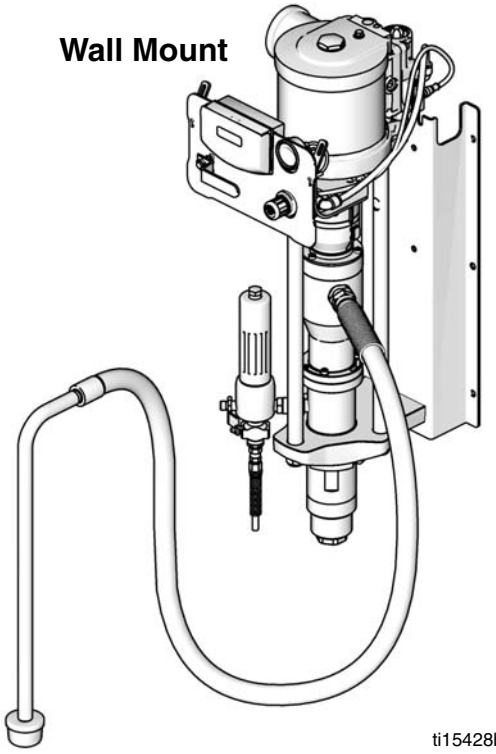
See pages 9-14 for model information, including maximum air inlet pressures and maximum fluid working pressures.

Cart Mount



ti14530a

Wall Mount



ti15428b

II 2 G c IIB T3 (200°C)

Contents

Contents 2
Related Manuals 3
Warnings 4
Important Two-Component Material Information . 7
Isocyanate Conditions 7
Material Self-ignition 7
Keep Components A and B Separate 7
Moisture Sensitivity of Isocyanates 7
Changing Materials 7
Models 8
5:1 Packages (G05Bxx) 9
12:1 Packages (G12Bxx) 9
15:1 Packages (G15Bxx) 10
23:1 Packages (G23Bxx) 11
24:1 Packages (G24Bxx) 12
25:1 Packages (G25Bxx) 13
35:1 Packages (G35Bxx) 14
Installation 15
General Information 15
Prepare the Operator 15
Prepare the Site 16
Mount the Pump 17
Supplied Components 17
Air Line Accessories 18
Grounding 18
Setup 18
Operation 19
Pressure Relief Procedure 19
Flush the Pump Before First Use 19
Trigger Lock 19
Prime and Adjust the Pump 20
Install the Spray Tip 20
Adjust the Spray Pattern 21
Shutdown 22
Maintenance 22
Preventive Maintenance Schedule 22
Tighten Threaded Connections 22
Flushing 22
DataTrak Controls and Indicators 23
DataTrak Operation 24
Setup Mode 24
Run Mode 24
Replace DataTrak Battery or Fuse 27
Troubleshooting 29
Parts 30
Cart Mount 30
Wall Mount 31
G05Bxx Models 32
G12Bxx Models 32
G15Bxx Models 33
G23Bxx Models 34
G24Bxx Models 35
G25Bxx Models 36
G35Bxx Models 37
Kits 38
Cart Mounting Kit 38
Cart Floor Mounting Kit 38
Wall Mounting Kit 39
Mounting Hardware Kits 39
Air Control Mounting Kit-Wall 39
Air Control Mounting Kit-Cart 39
Pump and Gun Control Panel Kits 40
Pump Only Control Panel Kits 41
DataTrak Kits 42
Suction Hose Kits 42
Drain Valve Kit 256425 43
Overflow Chamber Kit 24E298 43
Reinforced PTFE V-Packing Kits and PTFE Bellows Kits 43
Guns and Hoses 44
Mounting Plate Dimensions 45
Technical Data 47
Graco Standard Warranty 48
Graco Information 48

Related Manuals

Manual	Description
312793	Merkur Bellows Displacement Pump
312795	Merkur Bellows Pump Assembly
312796	NXT™ Air Motor
312798	Merkur Electrostatic Packages
3A0149	G15/G40 Spray Gun
312145	XTR™5 and XTR™7 Airless Spray Gun
307273	Fluid Outlet Filter

Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual, refer back to these Warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

⚠WARNING

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:

- Use equipment only in well ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area. See **Grounding** instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

Static charge may build up on plastic parts during cleaning and could discharge and ignite flammable vapors. To help prevent fire and explosion:

- Clean plastic parts only in a well ventilated area.
- Do not clean with a dry cloth.
- Do not operate electrostatic guns in equipment work area.

SPECIAL CONDITIONS FOR SAFE USE

Equipment must comply with the following conditions to avoid a hazardous condition which can cause fire or explosion.

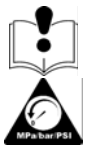
- All label and marking material must be cleaned with a damp cloth (or equivalent).
- The electronic monitoring system is required to be grounded. See **Grounding** instructions.

⚠WARNING

SKIN INJECTION HAZARD

High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**

- Do not spray without tip guard and trigger guard installed.
- Engage trigger lock when not spraying.
- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** when you stop spraying and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses and couplings daily. Replace worn or damaged parts immediately.



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS from distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure. Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

MOVING PARTS HAZARD

Moving parts can pinch, cut or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.

SUCTION HAZARD

Powerful suction could cause serious injury.

- Never place hands near the pump fluid inlet when pump is operating or pressurized.

⚠WARNING

TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read MSDSs to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
- Always wear chemically impermeable gloves when spraying, dispensing, or cleaning equipment.

PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This equipment includes but is not limited to:

- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

Important Two-Component Material Information

Isocyanate Conditions

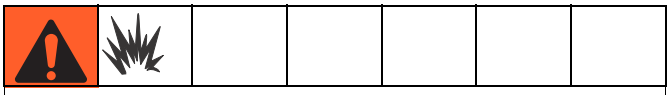
Spraying or dispensing materials containing isocyanates creates potentially harmful mists, vapors, and atomized particulates.

Read material manufacturer's warnings and material MSDS to know specific hazards and precautions related to isocyanates.

Prevent inhalation of isocyanate mists, vapors, and atomized particulates by providing sufficient ventilation in the work area. If sufficient ventilation is not available, a supplied-air respirator is required for everyone in the work area.

To prevent contact with isocyanates, appropriate personal protective equipment, including chemically impermeable gloves, boots, aprons, and goggles, is also required for everyone in the work area.

Material Self-ignition



Some materials may become self-igniting if applied too thickly. Read material manufacturer's warnings and material MSDS.

Keep Components A and B Separate

Cross-contamination can result in cured material in fluid lines which could cause serious injury or damage equipment. To prevent cross-contamination of the equipment's wetted parts, **never** interchange component A (isocyanate) and component B (resin) parts.

Moisture Sensitivity of Isocyanates

Isocyanates (ISO) are catalysts used in two component coatings. ISO will react with moisture (such as humidity) to form small, hard, abrasive crystals, which become suspended in the fluid. Eventually a film will form on the surface and the ISO will begin to gel, increasing in viscosity. If used, this partially cured ISO will reduce performance and the life of all wetted parts.

NOTE: The amount of film formation and rate of crystallization varies depending on the blend of ISO, the humidity, and the temperature.

To prevent exposing ISO to moisture:

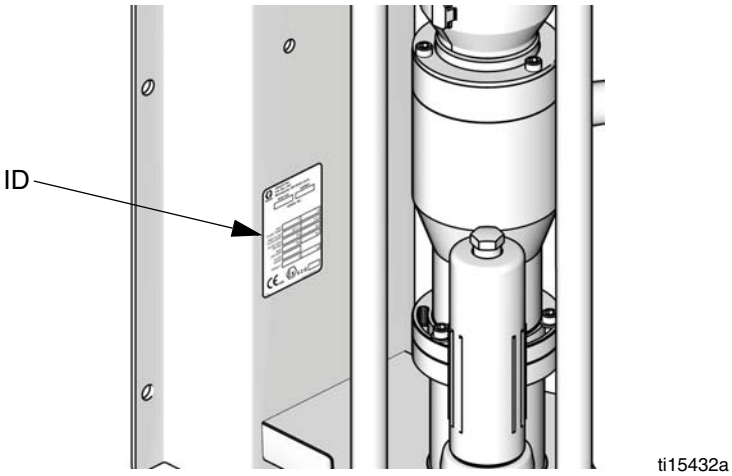
- Always use a sealed container with a desiccant dryer in the vent, or a nitrogen atmosphere. **Never** store ISO in an open container.
- Use moisture-proof hoses specifically designed for ISO, such as those supplied with your system.
- Never use reclaimed solvents, which may contain moisture. Always keep solvent containers closed when not in use.
- Never use solvent on one side if it has been contaminated from the other side.
- Always lubricate threaded parts with ISO pump oil or grease when reassembling.

Changing Materials

- When changing materials, flush the equipment multiple times to ensure it is thoroughly clean.
- Always clean the fluid inlet strainers after flushing.
- Check with your material manufacturer for chemical compatibility.
- Most materials use ISO on the A side, but some use ISO on the B side.

Models

Check the identification plate (ID) for the 6-digit part number of your package. Use the following matrix and tables to define the components of your package. For example, package number **G15B54** represents a Merkur package **(G)**, with a 15:1 ratio pump **(15)**, bellows style **(B)**, and the components shown for **(54)** in the table on page 10.



G	15		B		54
First Digit	**Second and Third Digits (Ratio)**		**Fourth Digit (Pump Style)**		**Fifth and Sixth Digit (Components Included)**
G (Merkur Package)	**05**	5:1	**B**	Bellows	See Tables, pages 9 to 14
	12	12:1			
	15	15:1			
	23	23:1			
	24	24:1			
	25	25:1			
	35	35:1			

DataTrak™ includes agency approvals listed below.

Intertek
9902471
Class I, Div. 1, Group D T3A

0359

II 1 G
Ex ia IIA T3 Ga
ITS13ATEX27862X

5:1 Packages (G05Bxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)
Maximum Fluid Working Pressure: 500 psi (3.4 MPa, 7 bar)

Model		Pump Assembly	Gun	Air Controls		Fluid Filter	Data Trak	Maximum Fluid Flow Rate gpm (lpm)	Weight - lb/kg	
Wall Mount	Cart Mount			Pump Only	Pump and Gun				Wall Mount	Cart Mount
G05B01	**G05B03**	B05FA0	None	✔		✔		2.4 (9.0)	78 (35.4)	107 (48.6)
G05B02	**G05B04**	B05FB0	None	✔		✔	✔		79 (35.8)	108 (49.1)
G05B05	**G05B07**	B05FA0	None	✔					73 (33.1)	102 (46.4)
G05B06	**G05B08**	B05FB0	None	✔			✔		74 (33.6)	103 (46.8)
G05B09	**G05B11**	B05FA1	None	✔		✔			78 (35.4)	107 (48.6)
G05B10	**G05B12**	B05FB1	None	✔		✔	✔		79 (35.8)	108 (49.1)
G05B13	**G05B15**	B05FA1	None	✔					73 (33.1)	102 (46.4
G05B14	**G05B16**	B05FB1	None	✔			✔		74 (33.6)	103 (46.8)

12:1 Packages (G12Bxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)
Maximum Fluid Working Pressure: 1200 psi (8.3 MPa, 83 bar)

Model		Pump Assembly	Gun	Air Controls		Fluid Filter	Data Trak	Maximum Fluid Flow Rate gpm (lpm)	Weight - lb/kg	
Wall Mount	Cart Mount			Pump Only	Pump and Gun				Wall Mount	Cart Mount
G12B01	**G12B03**	B12DA0	None	✔		✔		1.6 (6.0)	84 (38.1)	113 (51.4)
G12B02	**G12B04**	B12DB0	None	✔		✔	✔		85 (38.6)	114 (51.8)
G12B05	**G12B07**	B12DA0	None	✔					79 (35.8)	108 (49.1)
G12B06	**G12B08**	B12DB0	None	✔			✔		80 (36.3)	109 (49.5)
G12B09	**G12B11**	B12DA1	None	✔		✔			84 (38.1)	113 (51.4)
G12B10	**G12B12**	B12DB1	None	✔		✔	✔		85 (38.6)	114 (51.8)
G12B13	**G12B15**	B12DA1	None	✔					79 (35.8)	108 (49.1)
G12B14	**G12B16**	B12DB1	None	✔			✔		80 (36.3)	109 (49.5)

15:1 Packages (G15Bxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)
Maximum Fluid Working Pressure: 1500 psi (10.3 MPa, 103 bar)

Model			Air Controls			Hoses		Accessories				Weight - lb/kg	
Wall Mount	Cart Mount	Pump Assembly	Pump Only	Pump and Gun	Gun	Gun Fluid	Gun Air	Siphon Kit	Fluid Filter	Data Trak	Maximum Fluid Flow Rate gpm (lpm)	Wall Mount	Cart Mount
G15B01	**G15B05**	B15BA0	✔		None				✔		0.8 (3.0)	62 (28.1)	91 (41.4)
G15B02	**G15B06**	B15BB0	✔		None				✔	✔		63 (28.6)	92 (41.8)
G15B03	**G15B07**	B15BA0		✔	G15 Carbide	✔	✔	✔	✔*			72 (32.7	101 (44.9)
G15B04	**G15B08**	B15BB0		✔	G15 Carbide	✔	✔	✔	✔*	✔		73 (33.1)	102 (46.4)
G15B09	**G15B13**	B15BA0	✔		None							57 (25.9)	86 (39.1)
G15B10	**G15B14**	B15BB0	✔		None					✔		58 (26.3)	87 (39.5)
G15B11	**G15B15**	B15BA0		✔	G15 Carbide	✔	✔	✔				67 (30.4)	96 (43.6)
G15B12	**G15B16**	B15BB0		✔	G15 Carbide	✔	✔	✔		✔		68 (30.8)	97 (44.1)
G15B17	**G15B21**	B15BA1	✔		None				✔			62 (28.1)	91 (41.4)
G15B18	**G15B22**	B15BB1	✔		None				✔	✔		63 (28.6)	92 (41.8)
G15B19	**G15B23**	B15BA1		✔	G15 Carbide	✔	✔	✔	✔*			72 (32.7)	101 (44.9)
G15B20	**G15B24**	B15BB1		✔	G15 Carbide	✔	✔	✔	✔*	✔		73 (33.1)	102 (46.4)
G15B25	**G15B29**	B15BA1	✔		None							57 (25.9)	86 (39.1)
G15B26	**G15B30**	B15BB1	✔		None					✔		58 (26.3)	87 (39.5)
G15B27	**G15B31**	B15BA1		✔	G15 Carbide	✔	✔	✔				67 (30.4)	96 (43.6)
G15B28	**G15B32**	B15BB1		✔	G15 Carbide	✔	✔	✔		✔		68 (30.8)	97 (44.1)
G15B51	**G15B55**	B15FA0	✔		None				✔		2.4 (9.0)	95 (43.1)	124 (56.4)
G15B52	**G15B56**	B15FB0	✔		None				✔	✔		96 (43.5)	125 (56.8)
G15B53	**G15B57**	B15FA0		✔	G15 Carbide	✔	✔	✔	✔*			105 (47.6)	134 (60.9)
G15B54	**G15B58**	B15FB0		✔	G15 Carbide	✔	✔	✔	✔*	✔		106 (48.1)	135 (61.4)
G15B59	**G15B63**	B15FA0	✔		None							90 (40.8)	119 (54.1)
G15B60	**G15B64**	B15FB0	✔		None					✔		91 (41.3)	120 (54.5)
G15B61	**G15B65**	B15FA0		✔	G15 Carbide	✔	✔	✔				100 (45.4)	129 (58.6)
G15B62	**G15B66**	B15FB0		✔	G15 Carbide	✔	✔	✔		✔		101 (45.8)	130 (59.1)
G15B67	**G15B71**	B15FA1	✔		None				✔			95 (43.1)	124 (56.4)
G15B68	**G15B72**	B15FB1	✔		None				✔	✔		96 (43.5)	125 (56.8)
G15B69	**G15B73**	B15FA1		✔	G15 Carbide	✔	✔	✔	✔*			105 (47.6)	134 (60.9)
G15B70	**G15B74**	B15FB1		✔	G15 Carbide	✔	✔	✔	✔*	✔		106 (48.1)	135 (61.4)
G15B75	**G15B79**	B15FA1	✔		None							90 (40.8)	119 (54.1)
G15B76	**G15B80**	B15FB1	✔		None					✔		91 (41.3)	120 (54.5)
G15B77	**G15B81**	B15FA1		✔	G15 Carbide	✔	✔	✔				100 (45.4)	129 (58.6)
G15B78	**G15B82**	B15FB1		✔	G15 Carbide	✔	✔	✔		✔		101 (45.8)	130 (59.1)

** Fluid filter includes fluid drain valve.*

23:1 Packages (G23Bxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)

Maximum Fluid Working Pressure: 2300 psi (15.9 MPa, 159 bar)

Model			Air Controls			Hoses		Accessories			Maximum Fluid Flow Rate gpm (lpm)	Weight - lb/kg	
Wall Mount	Cart Mount	Pump Assembly	Pump Only	Pump and Gun	Gun	Gun Fluid	Gun Air	Siphon Kit	Fluid Filter	Data Trak		Wall Mount	Cart Mount
G23B01	**G23B05**	B23DA0	✔		None				✔		1.6 (6.0)	91 (41.3)	120 (54.5)
G23B02	**G23B06**	B23DB0	✔		None				✔	✔		92 (41.7)	121 (55.0)
G23B03	**G23B07**	B23DA0		✔	G40	✔	✔	✔	✔*			101 (45.8)	130 (59.1)
G23B04	**G23B08**	B23DB0		✔	G40	✔	✔	✔	✔*	✔		102 (46.3)	131 (59.5)
G23B09	**G23B13**	B23DA0	✔		None							86 (39.0)	115 (52.3)
G23B10	**G23B14**	B23DB0	✔		None					✔		87 (39.5)	116 (52.7)
G23B11	**G23B15**	B23DA0		✔	G40	✔	✔	✔				96 (43.5)	125 (56.8)
G23B12	**G23B16**	B23DB0		✔	G40	✔	✔	✔		✔		97 (44.0)	126 (57.3)
G23B17	**G23B21**	B23DA1	✔		None				✔			91 (41.3)	120 (54.5)
G23B18	**G23B22**	B23DB1	✔		None				✔	✔		92 (41.7)	121 (55.0)
G23B19	**G23B23**	B23DA1		✔	G40	✔	✔	✔	✔*			101 (45.8)	130 (59.1)
G23B20	**G23B24**	B23DB1		✔	G40	✔	✔	✔	✔*	✔		102 (46.3)	131 (59.5)
G23B25	**G23B29**	B23DA1	✔		None							86 (39.0)	115 (52.3)
G23B26	**G23B30**	B23DB1	✔		None					✔		87 (39.5)	116 (52.7)
G23B27	**G23B31**	B23DA1		✔	G40	✔	✔	✔				96 (43.5)	125 (56.8)
G23B28	**G23B32**	B23DB1		✔	G40	✔	✔	✔		✔		97 (44.0)	126 (57.3)
	G23B35	B23DA0	✔		XTR	✔		✔	✔*				131 (59.5)
	G23B36	B23DB0	✔		XTR	✔		✔	✔*	✔			132 (60.0)

** Fluid filter includes fluid drain valve.*

24:1 Packages (G24Bxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)

Maximum Fluid Working Pressure: 2400 psi (16.5 MPa, 165 bar)

Model			Air Controls			Hoses		Accessories			Maximum Fluid Flow Rate gpm (lpm)	Weight - lb/kg	
Wall Mount	Cart Mount	Pump Assembly	Pump Only	Pump and Gun	Gun	Gun Fluid	Gun Air	Siphon Kit	Fluid Filter	Data Trak		Wall Mount	Cart Mount
G24B01	**G24B05**	B24FA0	✔		None				✔		2.4 (9.0)	98 (44.5)	127 (57.7)
G24B02	**G24B06**	B24FB0	✔		None				✔	✔		99 (44.9)	128 (58.2)
G24B03	**G24B07**	B24FA0		✔	G40	✔	✔	✔	✔*			108 (49.0)	137 (62.3)
G24B04	**G24B08**	B24FB0		✔	G40	✔	✔	✔	✔*	✔		109 (49.4)	138 (62.7)
G24B09	**G24B13**	B24FA0	✔		None							93 (42.2)	112 (50.9)
G24B10	**G24B14**	B24FB0	✔		None					✔		94 (42.6)	113 (51.4)
G24B11	**G24B15**	B24FA0		✔	G40	✔	✔	✔				103 (46.7)	132 (60.0)
G24B12	**G24B16**	B24FB0		✔	G40	✔	✔	✔		✔		104 (47.2)	133 (60.5)
G24B17	**G24B21**	B24FA1	✔		None				✔			98 (44.5)	127 (57.7)
G24B18	**G24B22**	B24FB1	✔		None				✔	✔		99 (44.9)	128 (58.2)
G24B19	**G24B23**	B24FA1		✔	G40	✔	✔	✔	✔*			108 (49.0)	137 (62.3)
G24B20	**G24B24**	B24FB1		✔	G40	✔	✔	✔	✔*	✔		109 (49.4)	138 (62.7)
G24B25	**G24B29**	B24FA1	✔		None							93 (42.2)	112 (50.9)
G24B26	**G24B30**	B24FB1	✔		None					✔		94 (42.6)	113 (51.4)
G24B27	**G24B31**	B24FA1		✔	G40	✔	✔	✔				103 (46.7)	132 (60.0)
G24B28	**G24B32**	B24FB1		✔	G40	✔	✔	✔		✔		104 (47.2)	133 (60.5)
	G24B35	B24FA0	✔		XTR	✔		✔	✔*				132 (60.0)
	G24B36	B24FB0	✔		XTR	✔		✔	✔*	✔			133 (60.5)

** Fluid filter includes fluid drain valve.*

25:1 Packages (G25Bxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)

Maximum Fluid Working Pressure: 2500 psi (17.2 MPa, 172 bar)

Model		Pump Assembly	Air Controls		Gun	Hoses		Accessories		Data Trak	Maximum Fluid Flow Rate gpm (lpm)	Weight - lb/kg	
Wall Mount	Cart Mount		Pump Only	Pump and Gun		Gun Fluid	Gun Air	Siphon Kit	Fluid Filter			Wall Mount	Cart Mount
G25B01	**G25B05**	B25BA0	✔		None				✔			68 (30.8)	97 (44.1)
G25B02	**G25B06**	B25BB0	✔		None				✔	✔		69 (31.3)	98 (44.5)
G25B03	**G25B07**	B25BA0		✔	G40	✔	✔	✔	✔*			78 (35.4)	107 (48.6)
G25B04	**G25B08**	B25BB0		✔	G40	✔	✔	✔	✔*	✔		79 (35.8)	108 (49.1)
G25B09	**G25B13**	B25BA0	✔		None							63 (28.6)	92 (41.8)
G25B10	**G25B14**	B25BB0	✔		None					✔		64 (29.0)	93 (42.3)
G25B11	**G25B15**	B25BA0		✔	G40	✔	✔	✔				73 (33.1)	102 (46.4)
G25B12	**G25B16**	B25BB0		✔	G40	✔	✔	✔		✔		74 (33.6)	103 (46.8)
G25B17	**G25B21**	B25BA1	✔		None				✔		0.8 (3.0)	68 (30.8)	97 (44.1)
G25B18	**G25B22**	B25BB1	✔		None				✔	✔		69 (31.3)	98 (44.5)
G25B19	**G25B23**	B25BA1		✔	G40	✔	✔	✔	✔*			78 (35.4)	107 (48.6)
G25B20	**G25B24**	B25BB1		✔	G40	✔	✔	✔	✔*	✔		79 (35.8)	108 (49.1)
G25B25	**G25B29**	B25BA1	✔		None							63 (28.6)	92 (41.8)
G25B26	**G25B30**	B25BB1	✔		None					✔		64 (29.0)	93 (42.3)
G25B27	**G25B31**	B25BA1		✔	G40	✔	✔	✔				73 (33.1)	102 (46.4)
G25B28	**G25B32**	B25BB1		✔	G40	✔	✔	✔		✔		74 (33.6)	103 (46.8)
	G25B33	B25BA0	✔		XTR	✔		✔	✔*				107 (48.6)
	G25B34	B25BB0	✔		XTR	✔		✔	✔*	✔			108 (49.1)

** Fluid filter includes fluid drain valve.*

35:1 Packages (G35Bxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)

Maximum Fluid Working Pressure: 3500 psi (24.1 MPa, 241 bar)

Model			Air Controls			Hoses			Accessories			Maximum Fluid Flow Rate gpm (lpm)	Weight - lb/kg	
Wall Mount	Cart Mount	Pump Assembly	Pump Only	Pump and Gun	Gun	Gun Fluid	Gun Fluid Whip	Gun Air	Siphon Kit	Fluid Filter	Data Trak		Wall Mount	Cart Mount
G35B01	**G35B05**	B35DA0	✔		None					✔		1.6 (6.0)	94 (42.6)	123 (55.4)
G35B02	**G35B06**	B35DB0	✔		None					✔	✔		95 (43.1)	124 (55.9)
G35B03	**G35B07**	B35DA0		✔	G40	✔	✔	✔	✔	✔*			104 (47.2)	133 (60.5)
G35B04	**G35B08**	B35DB0		✔	G40	✔	✔	✔	✔	✔*	✔		105 (47.6)	134 (60.9)
G35B09	**G35B13**	B35DA0	✔		None								89 (40.3)	118 (53.6)
G35B10	**G35B14**	B35DB0	✔		None						✔		90 (40.8)	119 (54.1)
G35B11	**G35B15**	B35DA0		✔	G40	✔	✔	✔	✔				99 (44.9)	128 (58.2)
G35B12	**G35B16**	B35DB0		✔	G40	✔	✔	✔	✔		✔		100 (45.4)	129 (58.6)
G35B17	**G35B21**	B35DA1	✔		None					✔			94 (42.6)	123 (55.4)
G35B18	**G35B22**	B35DB1	✔		None					✔	✔		95 (43.1)	124 (55.9)
G35B19	**G35B23**	B35DA1		✔	G40	✔	✔	✔	✔	✔*			104 (47.2)	133 (60.5)
G35B20	**G35B24**	B35DB1		✔	G40	✔	✔	✔	✔	✔*	✔		105 (47.6)	134 (60.9)
G35B25	**G35B29**	B35DA1	✔		None								89 (40.3)	118 (53.6)
G35B26	**G35B30**	B35DB1	✔		None						✔		90 (40.8)	119 (54.1)
G35B27	**G35B31**	B35DA1		✔	G40	✔	✔	✔	✔				99 (44.9)	128 (58.2)
G35B28	**G35B32**	B35DB1		✔	G40	✔	✔	✔	✔		✔		100 (45.4)	129 (58.6)
	G35B35	B35DA0	✔		XTR	✔	✔		✔	✔*				128 (58.2)
	G35B36	B35DB0	✔		XTR	✔	✔		✔	✔*	✔			129 (58.6)

** Fluid filter includes fluid drain valve.*

Installation

General Information

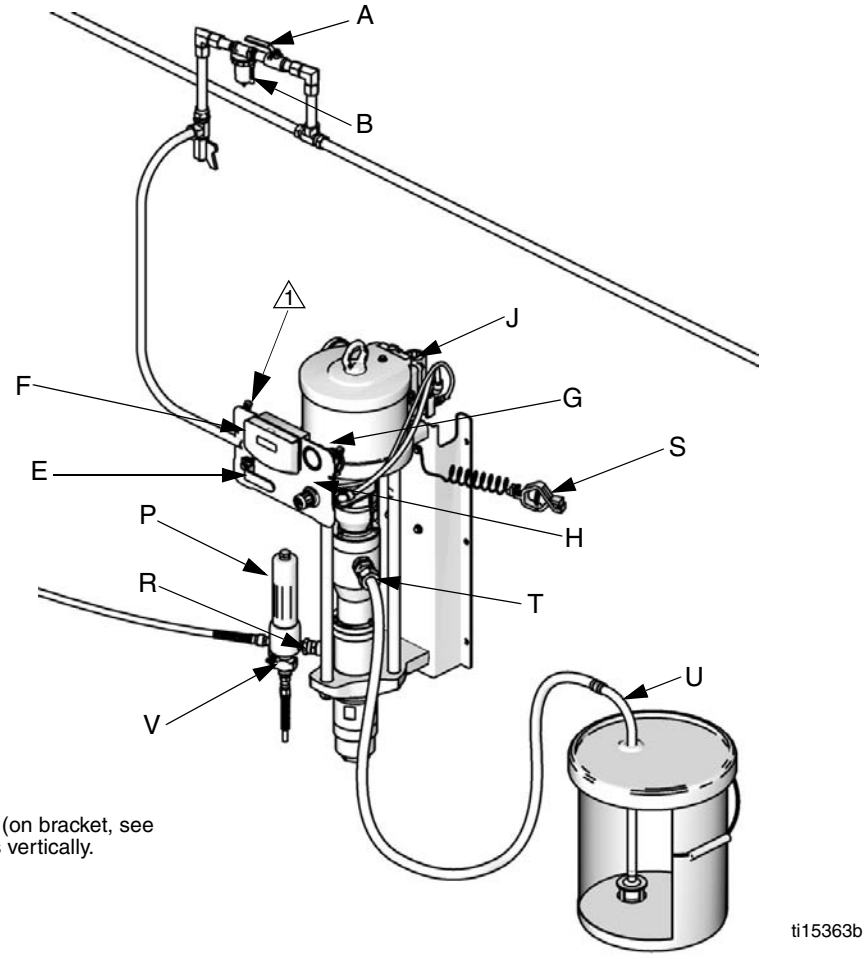
NOTE: Reference numbers and letters in parentheses in the text refer to the callouts in the figures and the parts drawing.

NOTE: Always use Genuine Graco Parts and Accessories, available from your Graco distributor. If you supply your own accessories, be sure they are adequately sized and pressure-rated for your system.

FIG. 1 and FIG. 2 are only guides for selecting and installing system components and accessories. Contact your Graco distributor for assistance in designing a system to suit your particular needs.

Prepare the Operator

All persons who operate the equipment must be trained in the operation of all system components as well as the proper handling of all fluids. All operators must thoroughly read all instruction manuals, tags, and labels before operating the equipment.



1 Use alternate mounting holes (on bracket, see page 39) to mount air controls vertically.

FIG. 1. Typical Wall-Mount Installation

Prepare the Site

Ensure that you have an adequate compressed air supply.

Bring a compressed air supply line from the air compressor to the pump location. Be sure all air hoses are properly sized and pressure-rated for your system. Use only electrically conductive hoses. The air hose should have a 3/8 npt(m) thread. A quick disconnect coupling is recommended.

Keep the site clear of any obstacles or debris that could interfere with the operator's movement.

Have a grounded, metal pail available for use when flushing the system.

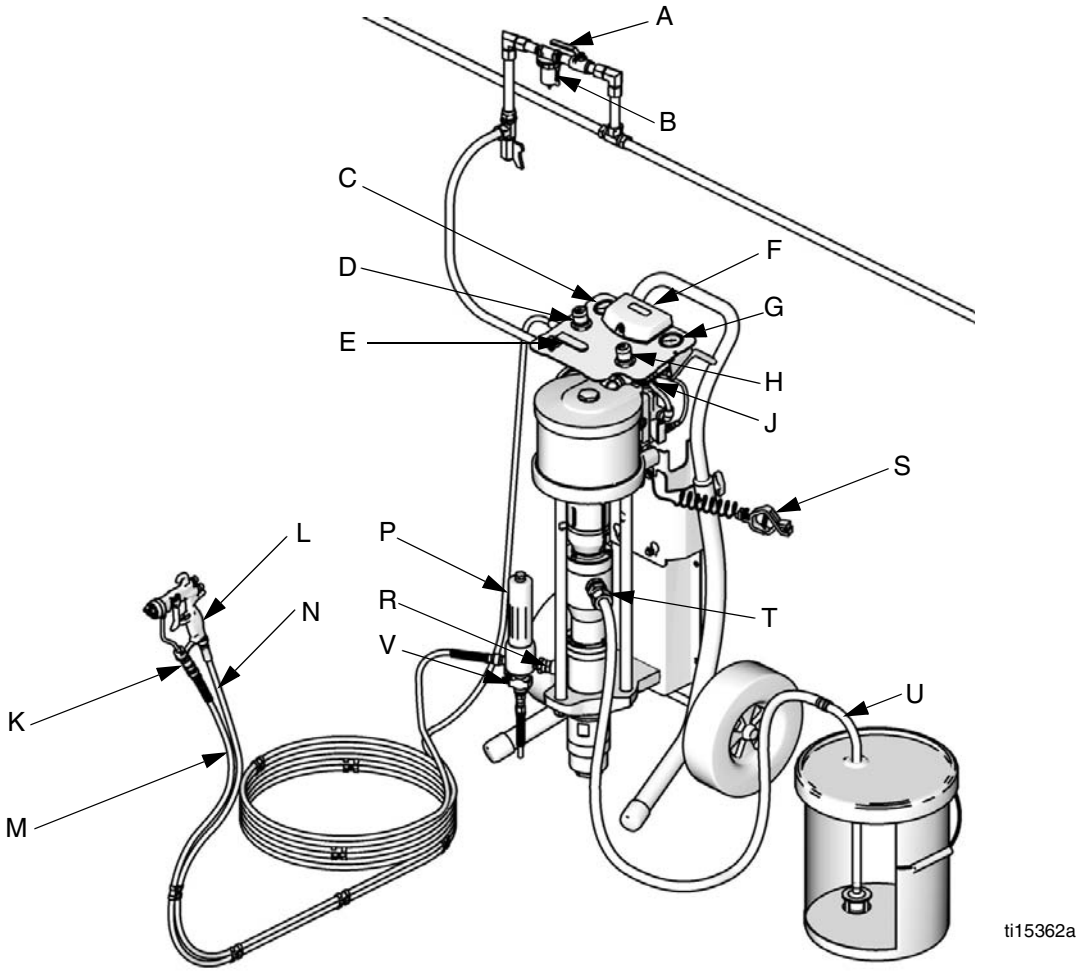


FIG. 2. Typical Cart-Mount Installation

Key:

FIG. 1 and FIG. 2

A Air Shutoff Valve
B Air Filter (optional accessory)
C Gun Air Pressure Gauge
D Gun Air Pressure Regulator
E Bleed Type Master Air Valve
F DataTrak
G Pump Air Pressure Gauge
H Pump Air Pressure Regulator
J Solenoid Release Button (not visible)
K Gun Swivel
L Air-Assisted Spray Gun
M Gun Fluid Supply Hose
N Gun Air Supply Hose
P Fluid Filter
R Pump Fluid Outlet
S Grounding Wire
T Pump Fluid Inlet
U Suction Hose
V Fluid Drain Valve

Mount the Pump

Mount the pump directly to the wall (order Wall Mounting Kit, page 39) or to a Graco cart (order Cart Mounting Kit 24E879).

Wall-Mounted Pumps

1. Be sure the wall can support the weight of the pump, bracket, hoses and accessories, as well as the stress caused during operation.
2. Position the wall bracket about 1.2-1.5 m (4-5 ft) above the floor. For ease of operation and service, make sure the pump air inlet, fluid inlet, and fluid outlet ports are easily accessible.
3. Using the wall bracket as a template, drill 10 mm (0.4 in.) mounting holes in the wall. Wall mounting dimensions are shown on page 45.
4. Attach the bracket to the wall. Use 9 mm (3/8 in.) screws that are long enough to keep the pump from vibrating during operation.

NOTE: Be sure the pump is level.

Cart-Mounted Pumps

Kit 24E885 is available if you plan to bolt your cart to the floor. It includes two spacers that keep the legs stable. Bolts not included.

Supplied Components

See FIG. 1 and FIG. 2. **Components vary by package ordered**. See tables on pages 9 to 14. Your package may include:

- The red-handled **bleed-type master air valve (E)** is required in your system to relieve air trapped between it and the air motor and gun when the valve is closed. Do not block access to the valve.

Trapped air can cause the pump to cycle unexpectedly, which could result in serious injury from splashing or moving parts.

  Be sure the valve is easily accessible from the pump and located downstream from the air regulator.

- The **pump air regulator (H)** controls pump speed and outlet pressure by adjusting the air pressure to the pump.
- The **air relief valve** (not shown) opens automatically to prevent overpressurization of the pump.
- The **gun air regulator (D)** adjusts the air pressure to the air-assisted spray gun (L).
- The **air-assisted or airless spray gun (L)** dispenses the fluid. The gun houses the spray tip (not shown), which is available in a wide range of sizes for different spray patterns and rates of flow. Refer to gun manual for tip installation.
- The transparent hose (**N**, labeled "**Air Hose** Only") provides the gun air supply.
- The blue hose (**M**) provides the **gun fluid supply**.
- The **gun swivel (K)** allows for freer gun movement and comes attached to the blue hose.
- The **suction hose (U)** allows the pump to draw fluid from a 5 gallon (19 liter) pail. A strainer also is supplied. If using non-Graco supplied suction hose, see inlet pressure notice, page 20.
- A **fluid filter (P)** with a 60 mesh (250 micron) stainless steel element filters particles from fluid as it leaves the pump.
- A **fluid drain valve (V)** relieves fluid pressure in the hose and gun.
- **DataTrak (F)** provides pump diagnostics and material usage information. See page 23.

Air Line Accessories

Install the following accessories in the order shown in FIG. 1 and FIG. 2, using adapters as necessary.

- An **air-line filter (B)** removes harmful dirt and moisture from the compressed air supply.
- A **second bleed-type air shutoff valve (A)** isolates the air line accessories for servicing. Locate upstream from all other air line accessories.

Grounding

The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.

Pump: See FIG. 3. Verify that the ground screw (GS) is attached and tightened securely to the air motor. Connect the other end of the ground wire (S) to a true earth ground.

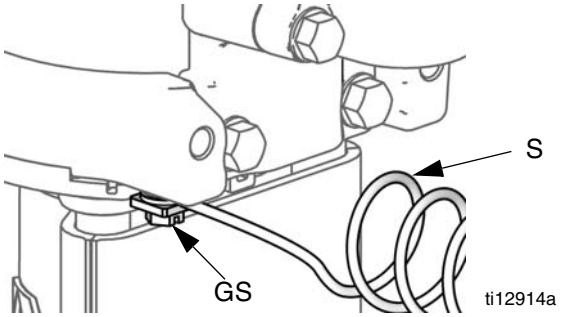


FIG. 3. Ground the Pump.

Air and fluid hoses: Static electricity may build up when fluids flow through pumps, hoses, and sprayers. At least one hose must be electrically conductive, with a maximum of 500 ft. (150 m) combined hose length to ensure grounding continuity. Check electrical resistance of hose. If total resistance to ground exceeds 25 megohms, replace hose immediately.

Air compressor: follow manufacturer's recommendations.

Spray gun / **Dispense valve:** Ground the spray gun through connection to a Graco-approved grounded fluid hose.

Fluid supply container: follow local code.

Object being sprayed: follow local code.

Solvent pails used when flushing: follow local code. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts grounding continuity.

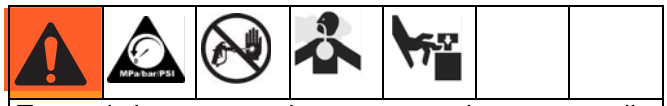
To maintain grounding continuity when flushing or relieving pressure: hold metal part of the spray gun/dispense valve firmly to the side of a grounded metal pail, then trigger the gun/valve.

Setup

1. See FIG. 2. Attach end of blue fluid hose (M) without gun swivel (K) to pump outlet (R) or filter (P) outlet.
2. Attach one end of the air hose (N) to gun air regulator (D).
3. Attach remaining end of the air hose (N) to air inlet at base of gun (L).
4. Attach other end of blue fluid hose (M), with gun swivel (K), to gun fluid inlet.
5. Clip fluid and air hoses together with the supplied hose clips (qty. of 7). Space clips as needed.
6. Apply lens cover to both regulator gauge lenses. Order Kit 24A540 for 5 sheets of 12 lens covers.
7. Verify that suction hose fittings are tight.

Operation

Pressure Relief Procedure



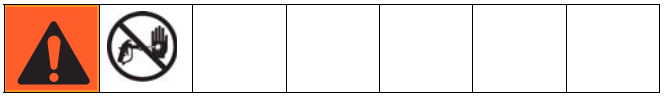
Trapped air can cause the pump to cycle unexpectedly, which could result in serious injury from splashing or moving parts.

1. Lock the gun trigger.
2. See FIG. 2. Turn off the bleed-type master air valve (E).
3. Unlock the gun trigger.
4. Hold a metal part of the gun firmly to a grounded metal waste container. Trigger the gun to relieve fluid pressure.
5. Lock the gun trigger.
6. Open all fluid drain valves in the system, having a waste container ready to catch the drainage. Leave the drain valve(s) open until you are ready to spray again.
7. If you suspect that pressure has not been fully relieved after following the steps above, check the following:
   a. The spray tip may be completely clogged. Very slowly loosen the air cap retaining ring to relieve pressure in the cavity between the ball/seat shutoff and the plugged tip. Clear the tip orifice.
   b. The gun fluid filter or the fluid hose may be completely clogged. Very slowly loosen the hose end coupling at the gun and relieve pressure gradually. Then loosen completely to clear the obstruction.
   c. After following the steps above, if the spray tip or hose still seems completely clogged, very slowly loosen the tip guard retaining nut or hose end coupling and relieve pressure gradually, then loosen completely. With tip removed, trigger gun into waste container.

Flush the Pump Before First Use

The pump is tested with lightweight oil, which is left in to protect the pump parts. If the fluid you are using may be contaminated by the oil, flush it out with a compatible solvent. See **Flushing**, page 22.

Trigger Lock



See FIG. 4. Always lock the gun trigger when you stop spraying to prevent gun from being triggered accidentally by hand or if dropped or bumped.

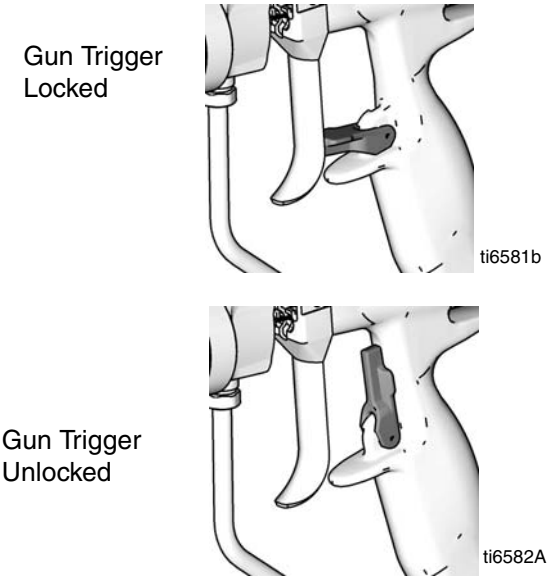


FIG. 4. Gun Trigger Lock

Prime and Adjust the Pump

NOTICE

TO PREVENT A BELLOWS FAILURE:

- Do not exceed fluid inlet pressure of 15 psi (0.1 MPa, 1.0 bar).
- Do not use a ball check pump on the inlet side of this pump.
- Do not use a suction tube with a check valve on the inlet side of this pump.

1. Lock the gun trigger. Remove tip guard and spray tip from gun. Refer to gun manual.
2. Close gun air regulator (D) and pump air regulator (H) by turning knobs counterclockwise reducing pressure to zero. Close bleed-type air valve (E). Also verify that all drain valves are closed.
3. Check that all fittings throughout system are tightened securely.
4. Position pail close to pump. Do not stretch suction hose tight; let it hang to assist fluid flow into pump.

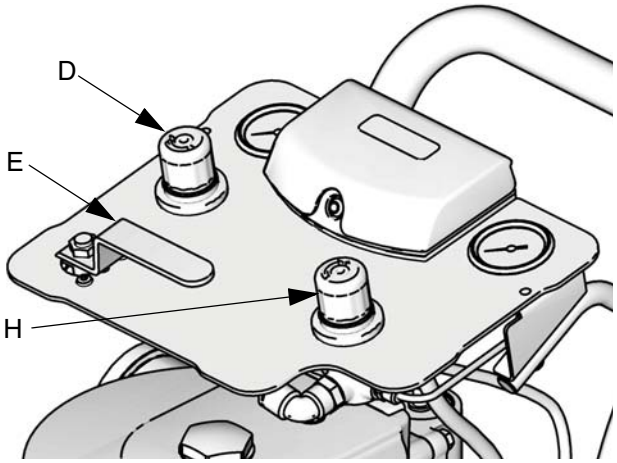


FIG. 5. Air Controls

5. Hold metal part of gun (L) firmly to side of grounded metal pail, unlock trigger, and hold trigger open.
6. *Pumps with runaway protection:* Enable the prime/flush function by pushing the prime/flush button on the DataTrak.
7. Open bleed-type air valve (E). Slowly open the pump air regulator (H) until the pump starts.
8. Cycle pump slowly until all air is pushed out and the pump and hoses are fully primed.
9. *Pumps with runaway protection:* Disable the prime/flush function by pushing the prime/flush button on the DataTrak.
10. Release the gun trigger and engage the trigger lock. Pump should stall against pressure.
11. In a direct supply system, with the pump and lines primed, and with adequate air pressure and volume supplied, the pump will start and stop as the gun/valve is opened and closed.
12. In a circulating system, the pump runs continuously and speeds up or slows down as the system demands until the air supply is shut off.
13. Use the air regulator to control the pump speed and the fluid pressure. Always use the lowest air pressure necessary to get the desired results. Higher pressures cause premature tip/nozzle and pump wear.

NOTICE

Never allow the pump to run dry of the fluid being pumped. A dry pump quickly accelerates to a high speed, possibly damaging itself. If your pump accelerates quickly, or is running too fast, stop it immediately and check the fluid supply. If the supply container is empty and air has been pumped into the lines, refill the container and prime the pump and the lines with fluid, or flush and leave it filled with a compatible solvent. Be sure to eliminate all air from the fluid system.

Install the Spray Tip

Follow **Pressure Relief Procedure**, page 19. Install the spray tip and tip guard as explained in your separate gun manual, supplied.

The fluid output and pattern width depend on the size of the spray tip, the fluid viscosity, and the fluid pressure. Use the Spray Tip Selection Chart in your gun instruction manual as a guide for selecting an appropriate spray tip for your application.

Adjust the Spray Pattern

1. Do not turn on atomizing air supply. Fluid pressure is controlled by the air pressure supplied to the pump (pump air regulator). Set fluid pressure at low starting pressure. For low viscosity fluids (less than 25 sec, #2 Zahn cup) with lower percent solids (typically less than 40%), start at 300 psi (2.1 MPa, 21 bar) at pump outlet. For fluids with higher viscosity or higher solids content, start at 600 psi (4.2 MPa, 42 bar). Refer to the following example.

   Example:

Pump Ratio		Pump Air Regulator Setting psi (MPa, bar)		Approximate Fluid Pressure psig (MPa, bar)
15:1	x	20 (0.14, 1.4)	=	300 (2.1, 21)
30:1	x	20 (0.14, 1.4)	=	600 (4.2, 42)

2. Trigger gun to check atomization; do not be concerned about pattern shape.

3. Hold gun perpendicular and approximately 12 inches (304 mm) from surface.

4. Move gun first, then pull gun trigger to spray onto test paper.

5. Increase fluid pressure in 100 psi (0.7 MPa, 7 bar) increments, just to the point where a further increase in fluid pressure does not significantly improve fluid atomization. Refer to the following example.

   Example:

Pump Ratio		Pump Air Regulator Increment psi (MPa, bar)		Incremental Fluid Pressure psi (MPa, bar)
15:1	x	7 (.05, 0.5)	=	100 (0.7, 7.0)
30:1	x	3.3 (0.02, 0.2)	=	100 (0.7, 7.0)

6. See FIG. 6. Close off pattern adjustment air by turning knob (W) clockwise (in) all the way. This sets gun for its widest pattern.

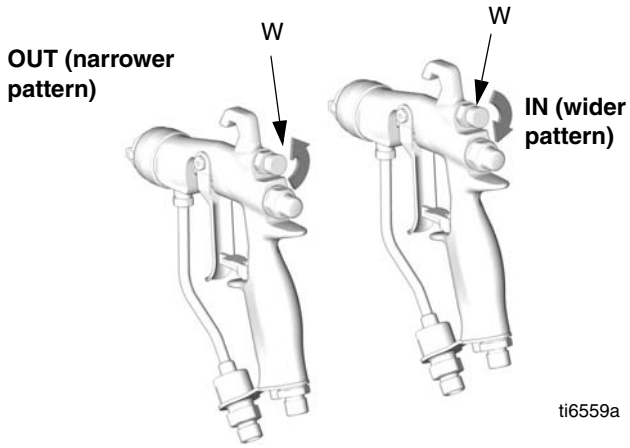


FIG. 6. Pattern Air Adjustment

7. See FIG. 7. Set atomizing air pressure at about 5 psi (0.35 bar, 35 kPa) when triggered. Check spray pattern, then slowly increase air pressure until tails are completely atomized and pulled into spray pattern. Do not exceed 100 psi (0.7 MPa, 7 bar) air pressure to gun.

   See FIG. 6. For narrower pattern, turn pattern adjustment valve knob (W) counterclockwise (out). If pattern is still not narrow enough, increase air pressure to gun slightly or use different size tip.

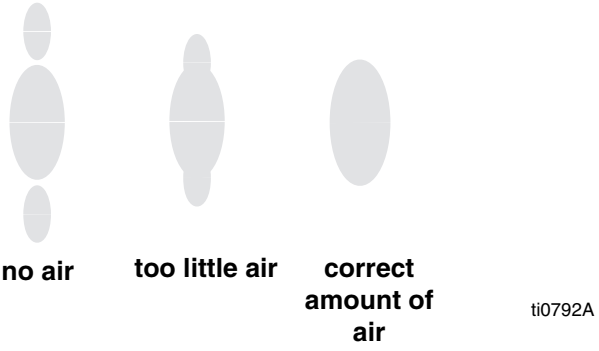


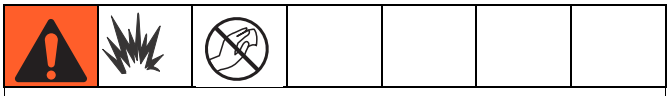
FIG. 7

Shutdown

Follow **Pressure Relief Procedure**, page 19.

Always flush the pump before the fluid dries on the displacement rod. See **Flushing** on page 22.

NOTE: If the overflow chamber (optional accessory) contains fluid, unscrew the bottle (103) and discard. If it has not been used, the bottle can remain attached to the cap.



To avoid the buildup of static charge, do not rub the plastic bottle with a dry cloth while it is attached to the pump. Remove the bottle to clean, if needed.

Maintenance

Preventive Maintenance Schedule

The operating conditions of your particular system determine how often maintenance is required. Establish a preventive maintenance schedule by recording when and what kind of maintenance is needed, and then determine a regular schedule for checking your system.

Replace lens covers on regulator gauge lenses when dirt makes gauges difficult to read.

Tighten Threaded Connections

Before each use, check all hoses for wear or damage. Replace as necessary. Check that all threaded connections are tight and leak-free.

Flushing

Read all **Warnings.** Follow all **Grounding** instructions. See page **18.**

Flush the pump:

- Before first use
- When changing colors or fluids
- Before fluid dries or settles out in a dormant pump (check the pot life of catalyzed fluids)
- Before storing the pump.

Flush with a fluid that is compatible with the fluid you are pumping and with the wetted parts in your system. Check with your fluid manufacturer or supplier for recommended flushing fluids and flushing frequency.

1. Follow **Pressure Relief Procedure**, page 19.
2. Remove tip guard and spray tip from gun. Refer to separate gun manual.
3. Place suction hose in container of solvent.
4. Hold metal part of gun firmly to side of grounded metal pail.
5. Start pump. Always use lowest possible fluid pressure when flushing.
6. *Units with runaway protection only:* enable the prime/flush function by pushing the prime/flush button on the DataTrak.
7. Trigger gun. Flush system until clear solvent flows from gun.
8. *Units with runaway protection only:* disable the prime/flush function by pushing the prime/flush button on the DataTrak.
9. Follow **Pressure Relief Procedure**, page 19.
10. Clean tip guard, spray tip, and fluid filter element separately, then reinstall them.
11. Clean inside and outside of suction hose.

DataTrak Controls and Indicators

Key for FIG. 8

AA Runaway Limit, in cycles per minute (user settable; 00=OFF)
AB Lower Displacement (user settable)
AC Flow Rate Units (user settable to ↕/min, gpm [US], gpm [Imperial], oz/min [US], oz/min [Imperial], l/min, or cc/min)
AD LED (fault indicator when lit)
AE Display
PF Prime/Flush Key (Enables Prime/Flush mode. While in Prime/Flush mode, runaway protection is disabled and the batch totalizer [BT] will not count.) LED will flash while in Prime/Flush mode.
RK Reset Key (Resets faults. Press and hold for 3 seconds to clear the batch totalizer.) Push to toggle between flow rate and cycle rate. With runaway enabled, push to extend and retract the solenoid pin.
CF Cycle/Flow Rate
BT Batch Totalizer
GT Grand Totalizer
RT Runaway Toggle (enable/disable)
UT E1 Toggle
DT E2 Toggle
ST E5 Toggle

NOTICE

To prevent damage to the softkey buttons, do not press the buttons with sharp objects such as pens, plastic cards, or fingernails.

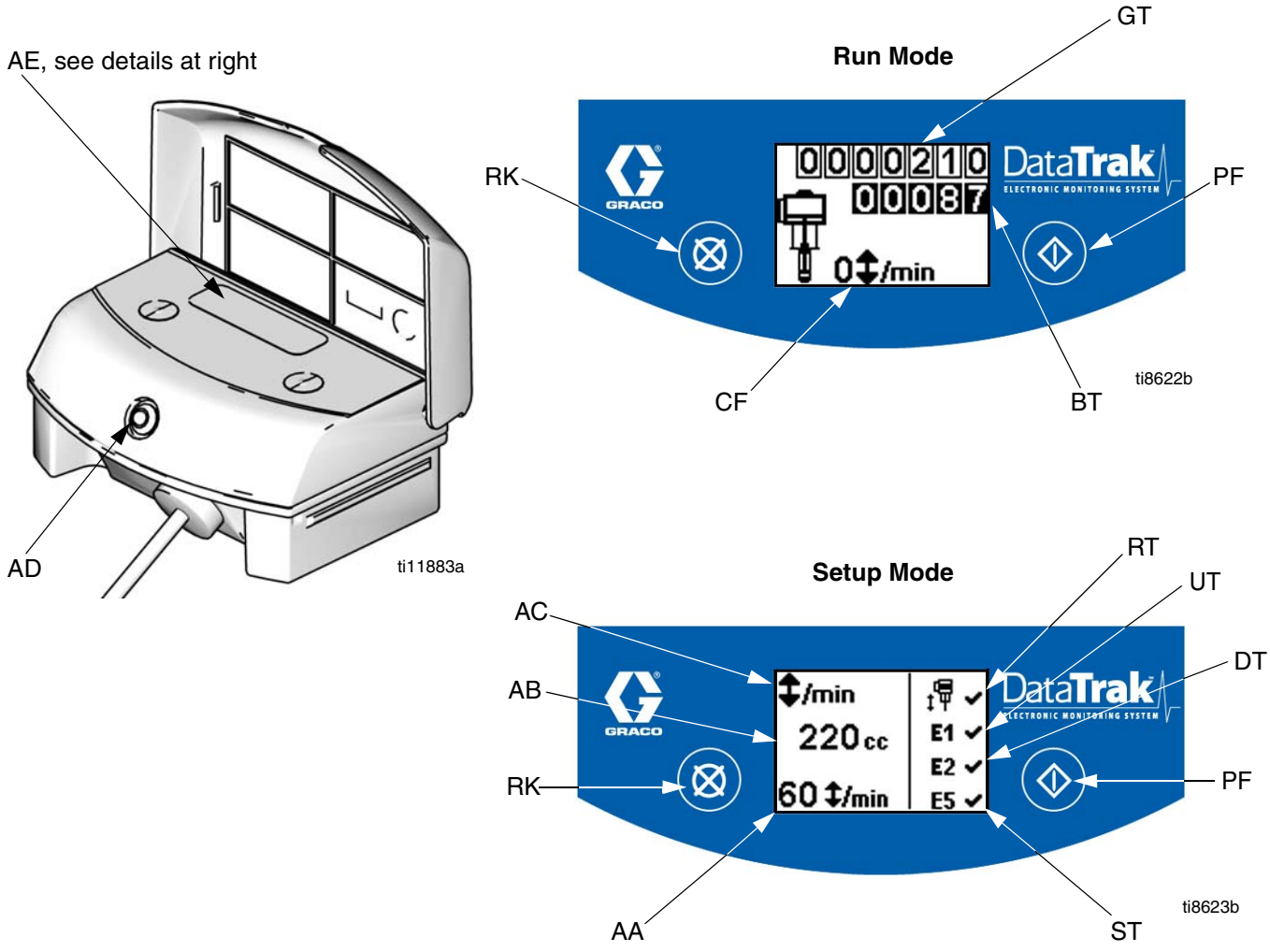


FIG. 8. DataTrak Controls and Indicators

DataTrak Operation

NOTE: The display (AE) will turn off after 1 minute to save battery life. Press any key to wake up the display.

Setup Mode

1. See FIG. 8. Press and hold ◈ for 5 seconds until Setup menu appears.
2. To enter settings for runaway, lower size, and flow rate units, and to enable runaway, E1, E2, and E5 error options, press ⊗ to change the value, then ◈ to save the value and move the cursor to the next data field. See page 26 for a description of E1, E2, and E5 error codes.

NOTE: Graco recommends setting runaway to 60 . All DataTrak modules are shipped with runaway monitoring not enabled.

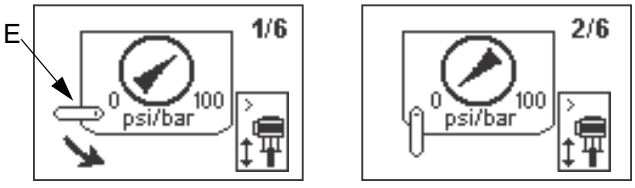
NOTE: When runaway, E1, E2, and E5 error options are enabled, a ✓ will appear on the setup screen. See FIG. 8.

3. Move the cursor to the E5 error enable option field, then press ◈ once more to exit Setup mode.

Run Mode

Runaway

1. See FIG. 8. If pump runaway occurs, the runaway solenoid will actuate, stopping the pump. The LED (AD) will flash and the display (AE) will indicate a runaway condition (see Table 1). The display will cycle through six instruction screens.
2. Runaway Screens 1 and 2: To reset the runaway solenoid, close the master air valve (E). Wait for air to completely bleed off the air motor.



3. Runaway Screens 3 and 4: After the air is bled off, push the solenoid release button (J) down to reset the air valve. The button will pop back up when the air valve is repressurized.

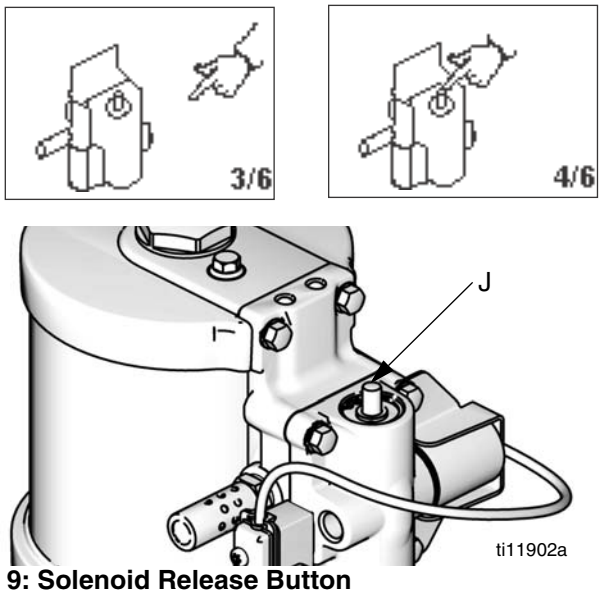
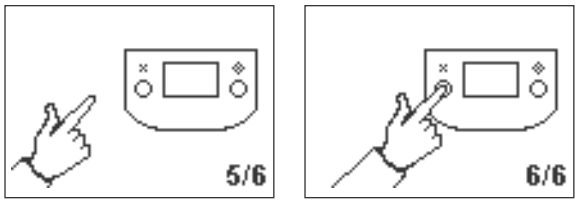


FIG. 9: Solenoid Release Button

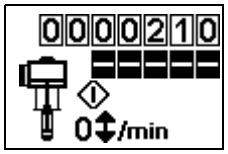
4. Runaway Screens 5 and 6: Press ⊗ to clear the diagnostic code and reset the runaway solenoid.



5. Open master air valve (E) to restart pump.

NOTE: To disable runaway monitoring, go to setup mode and set runaway value to 0 (zero) or toggle (RT) off ⊗ (see FIG. 8).

Prime/Flush

1. See FIG. 8. To enter Prime/Flush mode, press any key to wake up the display, then press ◈. The Prime/Flush symbol will appear in the display and the LED will flash. 

2. While in Prime/Flush mode, runaway protection is disabled and the batch totalizer (BT) will not count. The grand totalizer (GT) continues to count.
3. To exit Prime/Flush mode, press any key to wake up the display, then press ◈. The Prime/Flush symbol will disappear from the display and the LED will stop flashing.

Counter/Totalizer

See FIG. 8. The last digit of the batch totalizer (BT) represents tenths of gallons or liters. To reset the totalizer, press any key to wake up the display, then press and hold ⊗ for 3 seconds.

- If AC is set to gallons or ounces, BT and GT display gallons.
- If AC is set to liters or cc, BT and GT display liters.
- If AC is set to cycles, BT and GT display cycles.

Press ⊗ to toggle between flow rate units and cycles. A letter under the BT display indicates that both BT and GT are displaying gallons (g) or liters (l). No letter means both BT and GT are displaying cycles.

Display

See FIG. 8. The display (AE) will turn off after 1 minute of inactivity in Run mode or 3 minutes in Setup mode. Press any key to wake up the display.

NOTE: DataTrak will continue to count cycles when display is off.

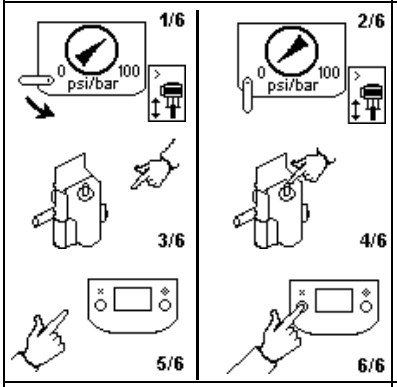
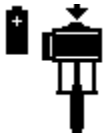
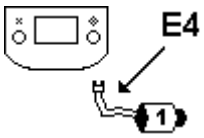
NOTE: The display (AE) may turn off if a high-level static discharge is applied to the DataTrak. Press any key to wake up the display.

Diagnostics

DataTrak can diagnose several problems with the pump. When the monitor detects a problem, the LED (AD, FIG. 8) will flash and a diagnostic code will appear on the display. See Table 1.

To acknowledge the diagnosis and return to the normal operating screen, press ⊗ once to wake up the display, and once more to clear the diagnostic code screen.

Table 1: Diagnostic Codes

Symbol	Code	Code Name	Diagnosis	Cause
		Runaway	Pump running faster than set runaway limit.	• Increased air pressure. • Increased fluid output. • Exhausted fluid supply.
E1	E-1	Diving Up	Leak during upstroke.	Worn piston valve or packings.
E2	E-2	Diving Down	Leak during downstroke.	Worn intake valve.
 E3	E-3	Low Battery	Battery voltage too low to stop runaway.	Low battery. Replace battery; see page 27.
E4	E-4	Service Component 1	Problem with stopping runaway.	• Damaged solenoid. • Damaged valve carriage. • Runaway (RT, FIG. 8) protection may be enabled with pump that is not equipped with a runaway solenoid valve. Enter setup screen and disable runaway protection.
	E-4	Disconnected Solenoid	Solenoid is disconnected.	• Solenoid unplugged. • Damaged solenoid wires.
			Solenoid is not engaging piston cup.	• Bracket and solenoid not tight against air valve housing.
E5	E-5	Service Component 2	Problem with sensing valve movement.	• Sensors unplugged. • Sensors mounted incorrectly. • Damaged sensors. • Damaged valve carriage.
	E-6	Blown Fuse	Fuse is blown. Replace fuse; see page 27.	• Faulty solenoid or solenoid wiring. • Extreme temperatures (above 140°F [60°C]). • Runaway (RT, FIG. 8) protection may be enabled with pump that is not equipped with a runaway solenoid valve. Enter setup screen and disable runaway protection.

Replace DataTrak Battery or Fuse

To reduce the risk of fire and explosion, the battery and fuse must be replaced in a non-hazardous location.

Use only an approved replacement battery, shown in TABLE 2, and an approved fuse, shown in TABLE 3. Use of an unapproved battery or fuse will void Graco's warranty and Intertek and Ex approvals.

Replace Battery

1. Unscrew cable from the back of the reed switch assembly. See FIG. 10.
2. Remove the cable from the two cable clips.

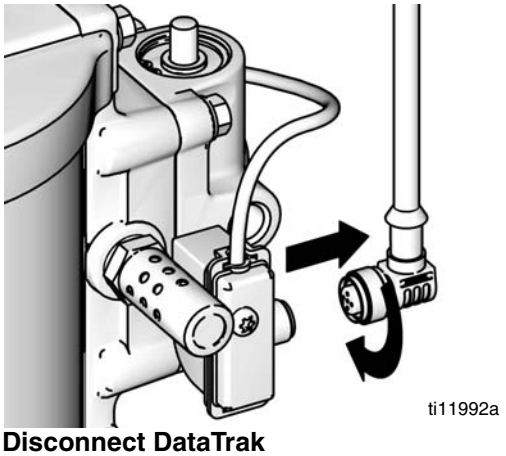


FIG. 10. Disconnect DataTrak

3. Remove DataTrak module from bracket. See FIG. 11. Take module and attached cable to a non-hazardous location.

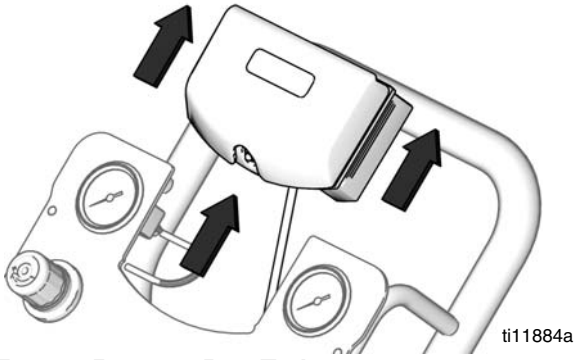


FIG. 11. Remove DataTrak

4. Remove two screws on back of module to access battery.
5. Disconnect the used battery and replace with an approved battery. See Table 2.

Table 2. Approved Batteries
Energizer alkaline # 522
Varta alkaline # 4922
Ultralife lithium # U9V
Duracell alkaline # MN1604

Replace Fuse

1. Remove the screw, metal strap, and plastic holder.
2. Pull the fuse away from the board.
3. Replace with an approved fuse from Table 3.

Table 3. Approved Fuses

DataTrak Part Number	Series*	Fuse Required
289822	A or B	24C580
	C and later	24V216
All other part numbers	A	24C580
	B and later	24V216

* Fig. 12 shows where to find the Series letter.

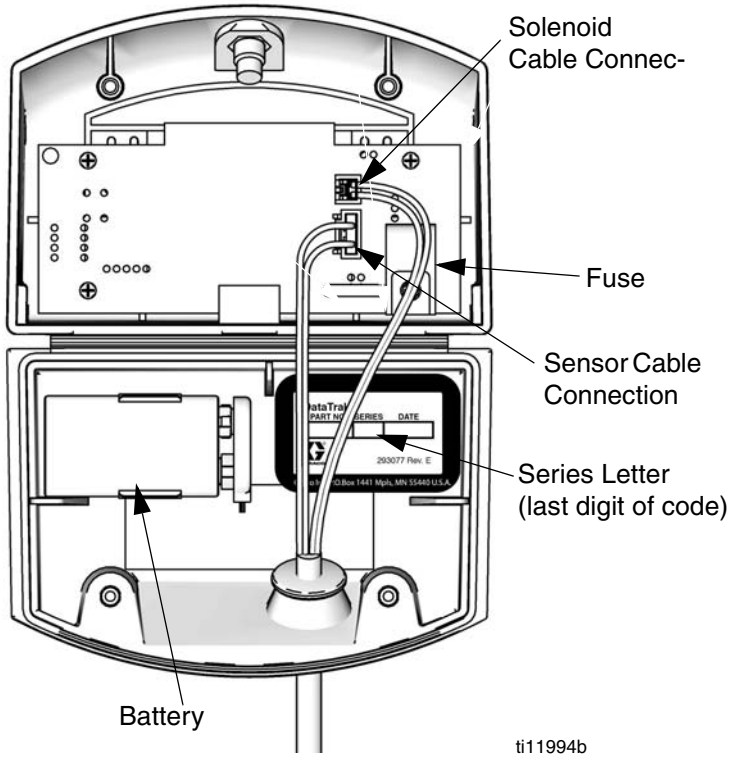


FIG. 12. DataTrak Battery and Fuse Location

Troubleshooting

Follow **Pressure Relief Procedure**, page 19, before checking or servicing the equipment.

NOTE: Check all possible problems and causes before disassembling the pump.

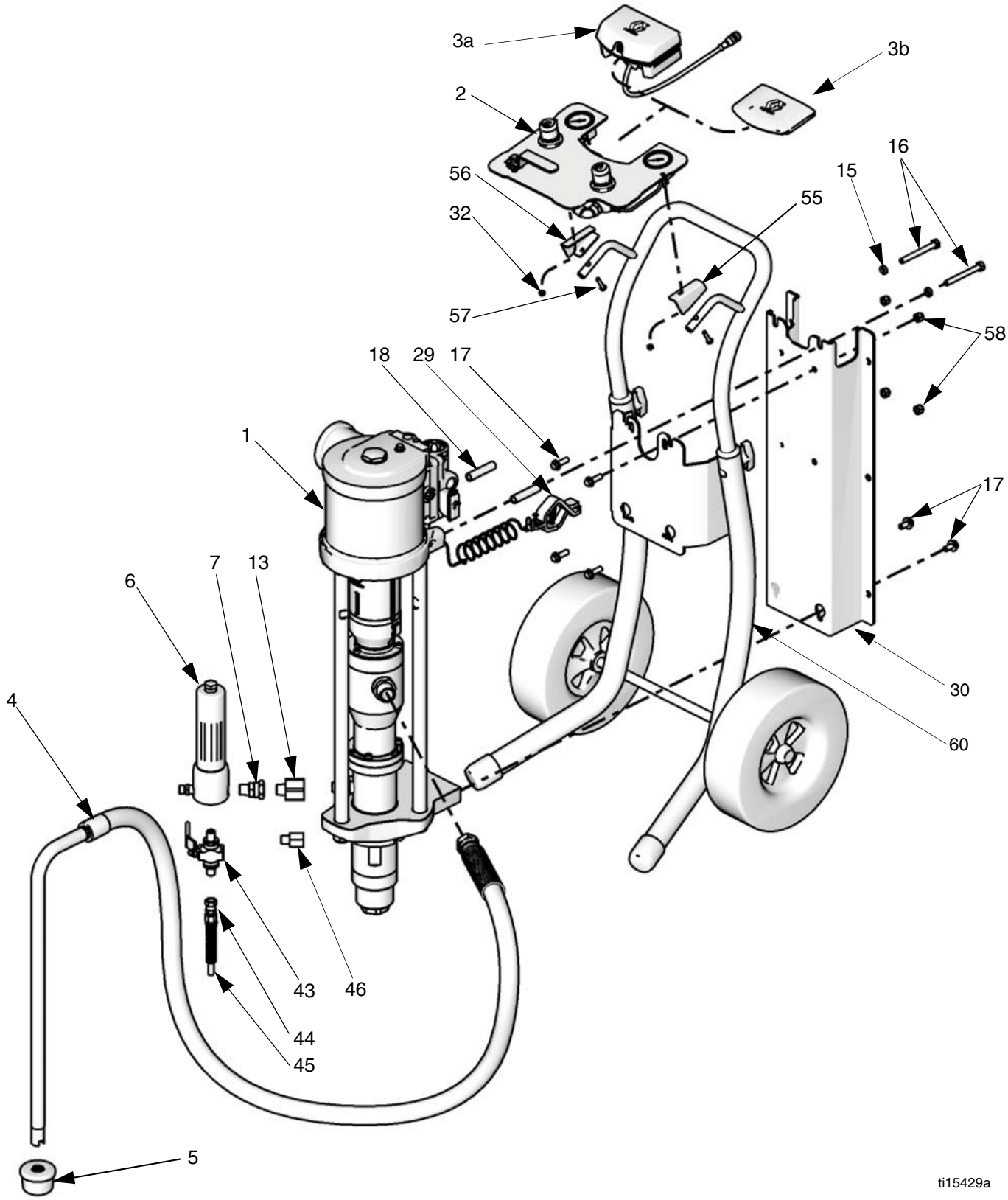
Problem	Cause	Solution
Pump fails to operate.	Restricted line or inadequate air supply; closed or clogged valves.	Clear line or increase air supply. Check that the valves are open.
	Obstructed fluid hose or gun; fluid hose ID is too small.	Open, clear*; use hose with larger ID.
	Dirty, worn, or damaged air motor parts.	Clean or repair air motor. See NXT Air Motor manual.**
	DataTrak models only: Extended solenoid pin is stopping the air valve from cycling.	Enable runaway protection (see **DataTrak Operation**, **Setup Mode**, page 24). Bleed air from motor. Press ⊗ on the DataTrak display to retract solenoid pin.
Pump operates, but output is low on both strokes.	Restricted line or inadequate air supply; closed or clogged valves.	Clear line or increase air supply. Check that the valves are open.
	Obstructed fluid hose or gun; fluid hose ID is too small.	Open, clear*; use hose with larger ID.
	Worn packings in displacement pump.	Replace packings. See Bellows Displacement Pump manual.**
Pump operates, but output is low on downstroke.	Held open or worn ball check valves or piston packings.	Clear valve; replace packings. See Bellows Displacement Pump manual.**
Erratic or accelerated pump speed.	Exhausted fluid supply.	Refill and prime.
	Held open or worn ball check valves or packings.	Clear valve, replace packings. See Bellows Displacement Pump manual.**
Fluid is visible in the overflow chamber.	Damaged bellows.	Replace. See Bellows Displacement Pump manual.**

* To determine if the fluid hose or gun is obstructed, relieve the pressure. Disconnect the fluid hose and place a container at the pump fluid outlet to catch any fluid. Turn on the air just enough to start the pump. It the pump starts when the air is turned on, the obstruction is in the hose or gun.

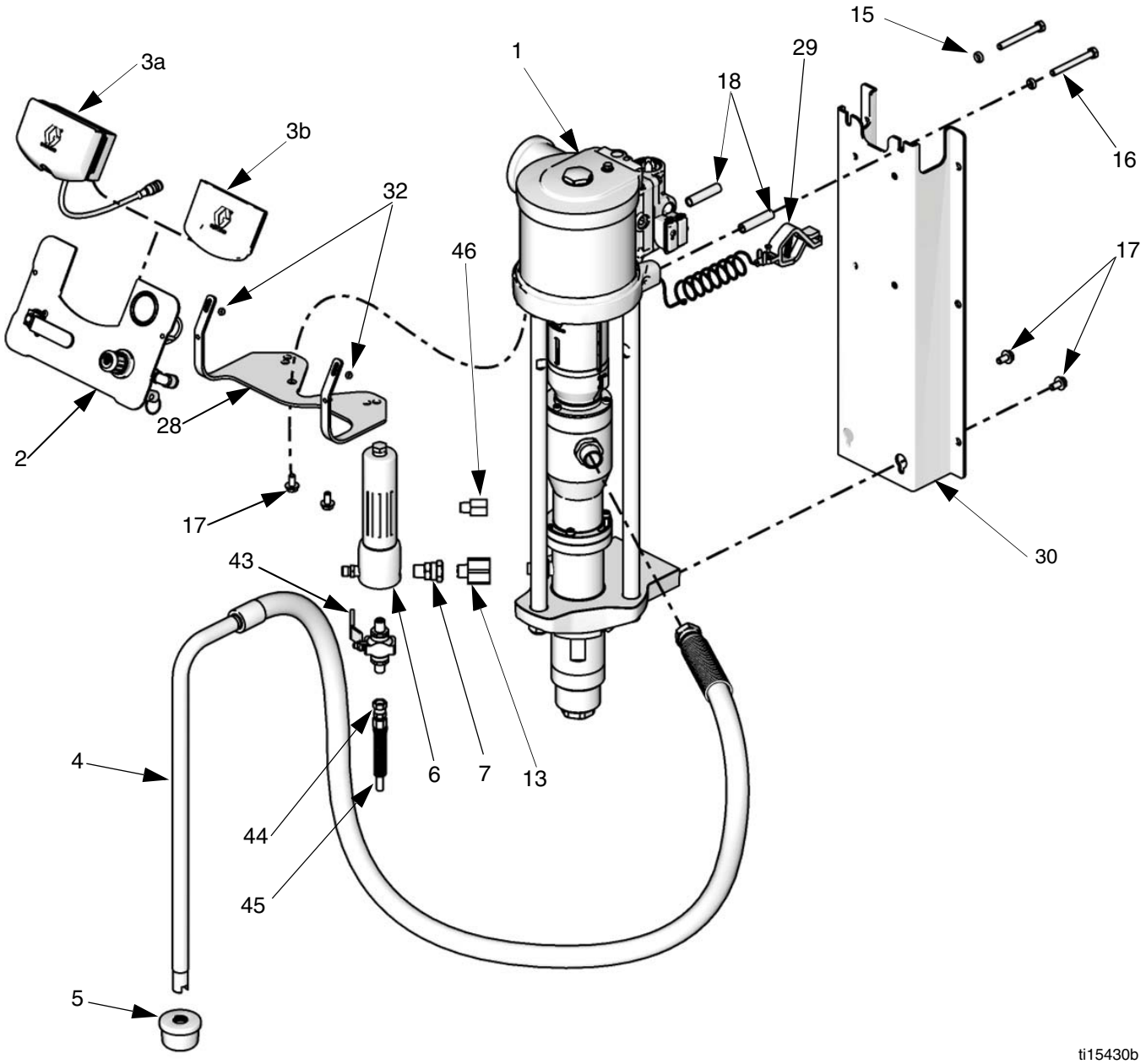
See **Related Manuals, page 3, for manual numbers.

Parts

Cart Mount



Wall Mount



ti15430b

NOTE:

- See page 39 for mounting kits for all packages.
- See pages 38-44 for repair parts and accessories.

Package	Parts List Page
G05Bxx	32
G12Bxx	32
G15Bxx	33
G23Bxx	34
G24Bxx	35
G25Bxx	36
G35Bxx	37

G05Bxx Models

This list includes all possible parts for G05Bxx packages. See page 9 to check whether a part is included in your particular package.

Ref	Part	Description	Qty
1		Pump Assembly; *see Manual 312795*	1
	B05FA0	M04LN0 x LB150A	
	B05FB0	M04LT0 x LB150A	
	B05FA1	M04LN0 x LB150B	
	B05FB1	M04LT0 x LB150B	
2	24A586	PANEL, air control; *see page 41*	1
3a	24A575	DATATRAK, assembly; *see page 42*	1
3b	-----	INSERT, panel; included with Part 2	1
6	24A587	FILTER, fluid (if equipped); includes Part 7	1
7	235208	FITTING, union, 3/8-18 npsm x 3/8-18 npt; included with Part 6	1
13	121238	ADAPTER, outlet, 3/8 nptm x 3/4 nptf; packages with fluid filter	1
15†	100023	WASHER; included with Part 30	2
16†	107557	SCREW, M8 x 75; included with Part 30	2
17†◆	111799	SCREW, M8 x 16 mm; included with Part 28 and Part 30	8
18†	-----	SPACER; included with Part 30	2
21	-----	HOSE CLAMP; included with Part 3a	2
25	24E991	RING, lift, wall mount, not shown	1
28◆	-----	BRACKET, air control panel, wall mount	1
29	238909	GROUNDING WIRE assembly	1
30	24E880	PLATE, mounting; includes Parts 15-18, *see Wall Mounting Kit, page 39*	1
32‡◆	105332	LOCK NUT, M5 x 0.8	2
38	107204	O-RING, lift ring or plug	1
55‡	-----	MOUNTING WEDGE, left, air control panel, cart mount	1
56‡	-----	MOUNTING WEDGE, right, air control panel, cart mount	1
57‡	110873	SCREW, M5 x 0.8	2
58†	104541	LOCK NUT, M8	4
60	24E879	CART MOUNTING KIT; *see page 38*	1
61▲	290079	TAG, warning, grounding, not shown	1
62▲	15W718	LABEL, warning, not shown	1
63▲	15W719	LABEL, warning, not shown	1

----- Not sold separately.

▲ *Replacement Warning labels, signs, tags, and cards are available at no cost.*

† *Included in Mounting Hardware Kit, page 39.*

◆ *Included in Air Control Mounting Kit-Wall, page 39.*

‡ *Included in Air Control Mounting Kit-Cart, page 39.*

G12Bxx Models

This list includes all possible parts for G12Bxx packages. See page 9 to check whether a part is included in your particular package.

Ref	Part	Description	Qty
1		Pump Assembly; *see Manual 312795*	1
	B12DA0	M07LN0 x LB100A	
	B12DB0	M07LT0 x LB100A	
	B12DA1	M07LN0 x LB100B	
	B12DB1	M07LT0 x LB100B	
2	24A583	PANEL, air control; *see page 41*	1
3a	24A576	DATATRAK, assembly; *see page 42*	1
3b	-----	INSERT, panel; included with Part 2	1
6	24A587	FILTER, fluid (if equipped); includes Part 7	1
7	235208	FITTING, union, 3/8-18 npsm x 3/8-18 npt; included with Part 6	1
15†	100023	WASHER; included with Part 30	2
16†	117080	SCREW, M8 x 60; included with Part 30	2
17†◆	111799	SCREW, M8 x 16 mm; included with Part 28 and Part 30	8
18†	-----	SPACER; included with Part 30	2
21	-----	HOSE CLAMP; included with Part 3a	2
25	24E991	RING, lift, wall mount, not shown	1
28◆	-----	BRACKET, air control panel, wall mount	1
29	238909	GROUNDING WIRE assembly	1
30	24E880	PLATE, mounting; includes Parts 15-18, *see Wall Mounting Kit, page 39*	1
32‡◆	105332	LOCK NUT, M5 x 0.8	2
38	107204	O-RING, lift ring or plug	1
55‡	-----	MOUNTING WEDGE, left, air control panel, cart mount	1
56‡	-----	MOUNTING WEDGE, right, air control panel, cart mount	1
57‡	110873	SCREW, M5 x 0.8	2
58	104541	LOCK NUT, M8	4
60	24E879	CART MOUNTING KIT; *see page 38*	1
61▲	290079	TAG, warning, grounding, not shown	1
62▲	15W718	LABEL, warning, not shown	1
63▲	15W719	LABEL, warning, not shown	1

----- Not sold separately.

▲ *Replacement Warning labels, signs, tags, and cards are available at no cost.*

† *Included in Mounting Hardware Kit, page 39.*

◆ *Included in Air Control Mounting Kit-Wall, page 39.*

‡ *Included in Air Control Mounting Kit-Cart, page 39.*

G15Bxx Models

This list includes all possible parts for G15Bxx packages. See page 10 to check whether a part is included in your particular package.

Ref	Part	Description	Qty
1		Pump Assembly; *see Manual 312795*	1
	B15BA0	M04LN0 x LB050A	
	B15BB0	M04LT0 x LB050A	
	B15BA1	M04LN0 x LB050B	
	B15BB1	M04LT0 x LB050B	
	B15FA0	M12LN0 x LB150A	
	B15FB0	M12LT0 x LB150A	
	B15FA1	M12LN0 x LB150B	
	B15FB1	M12LT0 x LB150B	
2		PANEL, air control	1
	24A586	M04xxx motor, pump only; *see page 41*	
	24A583	M12xxx motor, pump only; *see page 41*	
	24A585	M04xxx motor, pump and gun; *see page 40*	
	24A581	M12xxx motor, pump and gun; *see page 40*	
3a		DATATRAK, assembly; *see page* 42	1
	24A575	M04xxx motor	
	24A576	M12xxx motor	
3b	-----	INSERT, panel; included with Part 2	1
4		HOSE, suction; includes part 5	1
	256420	LB050x displacement pump	
	256422	LB150x displacement pump	
5	-----	STRAINER; included with Part 4	1
6	24A587	FILTER, fluid; if equipped includes Part 7	1
7	235208	ADAPTER, fluid filter, 3/8-18 npsm x 3/8-18 npt; included with Part 6, connects fluid filter to outlet adapter (Part 13)	1
8	189018	SWIVEL, fluid hose (packages with gun); *see page 44*	1
9	241812	HOSE, fluid (packages with gun); *see page 44*	1
10	24C853	GUN, G15 carbide; *see page 44*	1
11	AAM413	TIP (packages with gun); *see page 44*	1
12	AAMxxx	TIP OPTION (packages with gun); *see page 44*	1
13	121238	ADAPTER, outlet, 3/8 nptm x 3/4 nptf; LB150x displacement pumps; connects outlet to hose adapter (Part 46) or fluid filter adapter (Part 7)	1
14	256390	AIR HOSE, gun, (all AA packages); *see page 44*	1
15†	100023	WASHER; included with Part 30; M04xxx motor	2
16†	107557	SCREW, M8 x 75; included with Part 30; M04xxx motor	2
17†◆	111799	SCREW, M8 x 16; included with Part 28 and Part 30	
		M04xxx motor	8
		M12xxx motor	10
18†	-----	SPACER; included with Part 30; M04xxx motor	2
21	-----	HOSE CLAMP; included with Part 3a	2
22	-----	CLIP, hose (all AA packages), *see page 44 for packages of 10*	7
25	24E991	RING, lift, wall mount, not shown	1
28◆	-----	BRACKET, air control panel, wall mount	1
29	238909	GROUNDING WIRE assembly	1
30		PLATE, mounting; *see Wall Mounting Kit, page 39*	1
	24E880	M04xxx motor, includes Parts 15-18	
	24E882	M12xxx motor, includes Part 17	
32‡◆	105332	LOCK NUT, M5 x 0.8	2
38	107204	O-RING, lift ring or plug	1
43	256425	DRAIN VALVE (if equipped); includes Parts 44 and 45	1
44	-----	COUPLING, hose, drain; included with Part 43	1
45	-----	HOSE, drain; included with Part 43	1
46	512351	ADAPTER, hose, 1/4-18 npt x 3/8-18 npt; connects fluid hose to outlet adapter (Part 13)	1
55‡	-----	MOUNTING WEDGE, left, air control panel, cart mount	1
56‡	-----	MOUNTING WEDGE, right, air control panel, cart mount	1
57‡	110873	SCREW, M5 x 0.8	2
58†	104541	LOCK NUT, M8	4
60	24E879	CART MOUNTING KIT; *see page 38*	1
61▲	290079	TAG, warning, grounding, not shown	1
62▲	15W718	LABEL, warning, not shown	1
63▲	15W719	LABEL, warning, not shown	1

----- *Not sold separately.*

▲ *Replacement Warning labels, signs, tags, and cards are available at no cost.*

† *Included in Mounting Hardware Kit, page 39.*

◆ *Included in Air Control Mounting Kit-Wall, page 39.*

‡ *Included in Air Control Mounting Kit-Cart, page 39.*

G23Bxx Models

This list includes all possible parts for G23Bxx packages. See page 11 to check whether a part is included in your particular package.

Ref	Part	Description	Qty
1		Pump Assembly; *see Manual 312795*	1
	B23DA0	M12LN0 x LB100A	
	B23DB0	M12LT0 x LB100A	
	B23DA1	M12LN0 x LB100B	
	B23DB1	M12LT0 x LB100B	
2		PANEL, air control	1
	24A583	pump only; *see page 41*	
	24A581	pump and gun; *see page 40*	
3a	24A576	DATATRAK, assembly; *see page 42*	1
3b	-----	INSERT, panel; included with Part 2	1
4	256423	HOSE, suction; includes Part 5	1
5	-----	STRAINER; included with Part 4	1
6	24A587	FILTER, fluid (if equipped); includes Part 7	1
7	235208	ADAPTER, fluid filter, 3/8-18 npsm x 3/8-18 npt; included with Part 6, connects fluid filter to outlet	1
8	189018	SWIVEL, fluid hose (packages with gun); *see page 44*	1
9	241812	HOSE, fluid (packages with gun); *see page 44*	1
10		GUN; *see page 44*	1
	24C855	G40	
	XTR501	XTR 5	
11	AAM413	TIP (packages with G40 gun); *see page 44*	1
12	AAMxxx	TIP OPTION (packages with G40 gun); *see page 44*	1
14	256390	AIR HOSE, gun, (packages with G40 gun); *see page 44*	1
17†◆	111799	SCREW, M8 x 16; included with Part 28 and Part 30	10
21	-----	HOSE CLAMP; included with Part 3a	2
22	-----	CLIP, hose (all AA packages), *see page 44 for packages of 10*	7
25	24E991	RING, lift, wall mount, not shown	1
28◆	-----	BRACKET, air control panel, wall mount	1
29	238909	GROUNDING WIRE assembly	1
30	24E880	PLATE, mounting; includes Part 17, *see Wall Mounting Kit, page 39*	1
32‡◆	105332	LOCK NUT, M5 x 0.8	2
38	107204	O-RING, lift ring or plug	1
43	256425	DRAIN VALVE (if equipped); includes Parts 44 and 45	1
44	-----	COUPLING, hose, drain; included with Part 43	1
45	-----	HOSE, drain; included with Part 43	1
46	512351	ADAPTER, fluid hose, 1/4-18 npt x 3/8-18 npt; connects fluid hose to outlet (packages with gun and no fluid filter)	1

Ref	Part	Description	Qty
55‡	-----	MOUNTING WEDGE, left, air control panel, cart mount	1
56‡	-----	MOUNTING WEDGE, right, air control panel, cart mount	1
57‡	110873	SCREW, M5 x 0.8	2
58†	104541	LOCK NUT, M8	4
60	24E879	CART MOUNTING KIT; *see page 38*	1
61▲	290079	TAG, warning, grounding, not shown	1
62▲	15W718	LABEL, warning, not shown	1
63▲	15W719	LABEL, warning, not shown	1

----- *Not sold separately.*

▲ *Replacement Warning labels, signs, tags, and cards are available at no cost.*

† *Included in Mounting Hardware Kit, page 39.*

◆ *Included in Air Control Mounting Kit-Wall, page 39.*

‡ *Included in Air Control Mounting Kit-Cart, page 39.*

G24Bxx Models

This list includes all possible parts for G24Bxx packages. See page 12 to check whether a part is included in your particular package.

Ref	Part	Description	Qty
1		Pump Assembly; *see Manual 312795*	1
	B24FA0	M18LN0 x LB150A	
	B24FB0	M18LT0 x LB150A	
	B24FA1	M18LN0 x LB150B	
	B24FB1	M18LT0 x LB150B	
2		PANEL, air control	1
	24A583	pump only; *see page 41*	
	24A581	pump and gun; *see page 40*	
3a	24A576	DATATRAK, assembly; *see page*	1
3b	-----	INSERT, panel; included with Part 2	1
4	256424	HOSE, suction; includes Part 5	1
5	-----	STRAINER; included with Part 4	1
6	24A587	FILTER, fluid (if equipped); includes Part 7	1
7	235208	ADAPTER, fluid filter, 3/8-18 npsm x 3/8-18 npt; included with Part 6, connects fluid filter to outlet adapter (Part 13)	1
8	189018	SWIVEL, fluid hose (packages with gun); *see page 44*	1
9	241812	HOSE, fluid (packages with gun); *see page 44*	1
10		GUN; *see page 44*	1
	24C855	G40	
	XTR501	XTR 5	
11	AAM413	TIP (packages with G40 gun); *see page 44*	1
12	AAMxxx	TIP OPTION (packages with G40 gun); *see page 44*	1
13	121238	ADAPTER, outlet, 3/8 nptm x 3/4 nptf; connects outlet to hose adapter (Part 46) or fluid filter adapter (Part 7)	1
14	256390	AIR HOSE, gun, (packages with G40 gun); *see page 44*	1
17†◆	111799	SCREW, M8 x 16; included with Part 28 and Part 30	10
21	-----	HOSE CLAMP; included with Part 3a	2
22	-----	CLIP, hose (all AA packages), *see page 44 for packages of 10*	7
25	24E991	RING, lift, wall mount, not shown	1
28◆	-----	BRACKET, air control panel, wall mount	1
29	238909	GROUNDING WIRE assembly	1
30	24E880	PLATE, mounting; includes Part 17, *see Wall Mounting Kit, page 39*	1
32‡◆	105332	LOCK NUT, M5 x 0.8	2
38	107204	O-RING, lift ring or plug	1
43	256425	DRAIN VALVE (if equipped); includes Parts 44 and 45	1
44	-----	COUPLING, hose, drain; included with Part 43	1
45	-----	HOSE, drain; included with Part 43	1
46	512351	ADAPTER, hose, 1/4-18 npt x 3/8-18 npt; connects fluid hose to outlet adapter (Part 13)	1
55‡	-----	MOUNTING WEDGE, left, air control panel, cart mount	1
56‡	-----	MOUNTING WEDGE, right, air control panel, cart mount	1
57‡	110873	SCREW, M5 x 0.8	2
58†	104541	LOCK NUT, M8	4
60	24E879	CART MOUNTING KIT; *see page 38*	1
61▲	290079	TAG, warning, grounding, not shown	1
62▲	15W718	LABEL, warning, not shown	1
63▲	15W719	LABEL, warning, not shown	1

----- *Not sold separately.*

▲ *Replacement Warning labels, signs, tags, and cards are available at no cost.*

† *Included in Mounting Hardware Kit, page 39.*

◆ *Included in Air Control Mounting Kit-Wall, page 39.*

‡ *Included in Air Control Mounting Kit-Cart, page 39.*

G25Bxx Models

This list includes all possible parts for G25Bxx packages. See page 13 to check whether a part is included in your particular package.

Ref	Part	Description	Qty
1		Pump Assembly; *see Manual 312795*	1
	B25BA0	M07LN0 x LB050A	
	B25BB0	M07LT0 x LB050A	
	B25BA1	M07LN0 x LB050B	
	B25BB1	M07LT0 x LB050B	
2		PANEL, air control	1
	24A583	Pump only; *see page 41*	
	24A581	Pump and gun; *see page 40*	
3a	24A576	DATATRAK, assembly; *see page* 42	1
3b	-----	INSERT, panel; included with Part 2	1
4	256420	HOSE, suction; includes part 5	1
5	-----	STRAINER; included with Part 4	1
6	24A587	FILTER, fluid; if equipped includes Part 7	1
7	235208	ADAPTER, fluid filter, 3/8-18 npsm x 3/8-18 npt; included with Part 6, connects fluid filter to outlet adapter (Part 13)	1
8	189018	SWIVEL, fluid hose (packages with gun); *see page 44*	1
9	241812	HOSE, fluid (packages with gun); *see page 44*	1
10		GUN; *see page 44*	1
	24C855	G40	
	XTR501	XTR 5	
11	AAM413	TIP (packages with gun); *see page 44*	1
12	AAMxxx	TIP OPTION (packages with gun); *see page 44*	1
14	256390	AIR HOSE, gun, (all AA packages); *see page 44*	1
15†	100023	WASHER; included with Part 30	2
16†	117080	SCREW, M8 x 60; included with Part 30	2
17†◆	111799	SCREW, M8 x 16; included with Part 28 and Part 30	8
18†	-----	SPACER; included with Part 30	2
21	-----	HOSE CLAMP; included with Part 3a	2
22	-----	CLIP, hose (all AA packages), *see page 44 for packages of 10*	7
25	24E991	RING, lift, wall mount, not shown	1
28◆	-----	BRACKET, air control panel, wall mount	1
29	238909	GROUNDING WIRE assembly	1
30	24E881	PLATE, mounting; includes Part 17, *see Wall Mounting Kit, page 39*	1
32‡◆	105332	LOCK NUT, M5 x 0.8	2
38	107204	O-RING, lift ring or plug	1
43	256425	DRAIN VALVE (if equipped); includes Parts 44 and 45	1
44	-----	COUPLING, hose, drain; included with Part 43	1
45	-----	HOSE, drain; included with Part 43	1
46	512351	ADAPTER, fluid hose, 1/4-18 npt x 3/8-18 npt; connects fluid hose to outlet (packages with gun and no fluid filter)	1
55‡	-----	MOUNTING WEDGE, left, air control panel, cart mount	1
56‡	-----	MOUNTING WEDGE, right, air control panel, cart mount	1
57‡	110873	SCREW, M5 x 0.8	2
58†	104541	LOCK NUT, M8	4
60	24E879	CART MOUNTING KIT; *see page 38*	1
61▲	290079	TAG, warning, grounding, not shown	1
62▲	15W718	LABEL, warning, not shown	1
63▲	15W719	LABEL, warning, not shown	1

----- *Not sold separately.*

▲ *Replacement Warning labels, signs, tags, and cards are available at no cost.*

† *Included in Mounting Hardware Kit, page 39.*

◆ *Included in Air Control Mounting Kit-Wall, page 39.*

‡ *Included in Air Control Mounting Kit-Cart, page 39.*

G35Bxx Models

This list includes all possible parts for G35Bxx packages. See page 14 to check whether a part is included in your particular package.

Ref	Part	Description	Qty
1		Pump Assembly; *see Manual 312795*	1
	B35DA0	M18LN0 x LB100A	
	B35DB0	M18LT0 x LB100A	
	B35DA1	M18LN0 x LB100B	
	B35DB1	M18LT0 x LB100B	
2		PANEL, air control	1
	24A583	pump only; *see page 41*	
	24A581	pump and gun; *see page 40*	
3a	24A576	DATATRAK, assembly; *see page 42*	1
3b	-----	INSERT, panel; included with Part 2	1
4	256423	HOSE, suction; includes Part 5	1
5	-----	STRAINER; included with Part 4	1
6	24A587	FILTER, fluid (if equipped); includes Part 7	1
7	235208	ADAPTER, fluid filter, 3/8-18 npsm x 3/8-18 npt; included with Part 6, connects fluid filter to outlet	1
8	189018	SWIVEL, fluid hose (packages with gun); *see page 44*	1
9	24A446	HOSE, fluid (packages with gun); *see page 44*	1
10		GUN; *see page 44*	1
	24C855	G40	
	XTR501	XTR 5	
11	AAM413	TIP (packages with G40 gun); *see page 44*	1
12	AAMxxx	TIP OPTION (packages with G40 gun); *see page 44*	1
14	256390	AIR HOSE, gun, (packages with G40 gun); *see page 44*	1
17†◆	111799	SCREW, M8 x 16, included with Part 28 and Part 30	10
21	-----	HOSE CLAMP; included with Part 3a	2
22	-----	CLIP, hose (all AA packages), *see page 44 for packages of 10*	7
25	24E991	RING, lift, wall mount, not shown	1
28◆	-----	BRACKET, air control panel, wall mount	1
29	238909	GROUNDING WIRE assembly	1
30	24E880	PLATE, mounting; includes Part 17, *see Wall Mounting Kit, page 39*	1
32‡◆	105332	LOCK NUT, M5 x 0.8	2
38	107204	O-RING, lift ring or plug	1
40	166846	ADAPTER, 1/4 npt x 1/4 npsm	1
42	239069	WHIP HOSE; *see page 44*	1
43	256425	DRAIN VALVE (if equipped); includes Parts 44 and 45	1
44	-----	COUPLING, hose, drain; included with Part 43	1
45	-----	HOSE, drain; included with Part 43	1
46	512351	ADAPTER, fluid hose, 1/4-18 npt x 3/8-18 npt; connects fluid hose to outlet (packages with gun and no fluid filter)	1

Ref	Part	Description	Qty
55‡	-----	MOUNTING WEDGE, left, air control panel, cart mount	1
56‡	-----	MOUNTING WEDGE, right, air control panel, cart mount	1
57‡	110873	SCREW, M5 x 0.8	2
58†	104541	LOCK NUT, M8	4
60	24E879	CART MOUNTING KIT; *see page 38*	1
61▲	290079	TAG, warning, grounding, not shown	1
62▲	15W718	LABEL, warning, not shown	1
63▲	15W719	LABEL, warning, not shown	1

----- *Not sold separately.*

▲ *Replacement Warning labels, signs, tags, and cards are available at no cost.*

† *Included in Mounting Hardware Kit, page 39.*

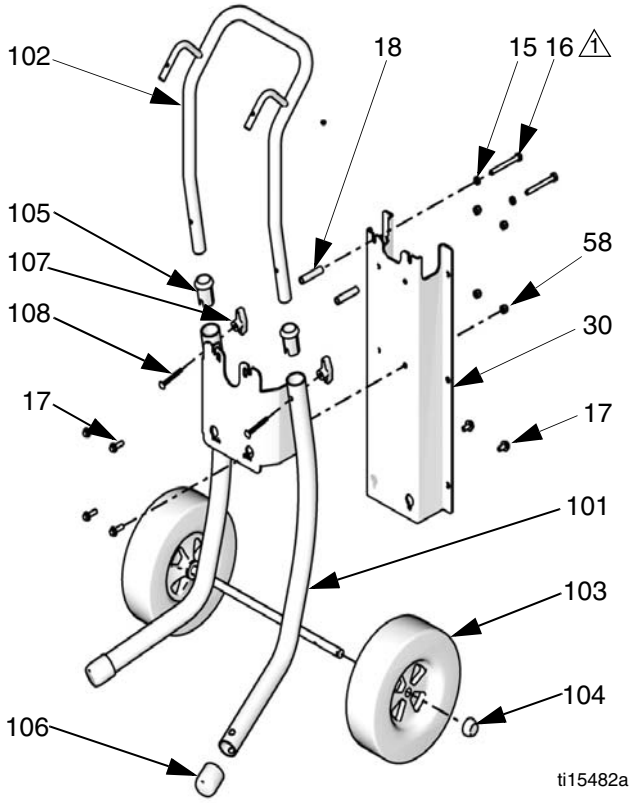
◆ *Included in Air Control Mounting Kit-Wall, page 39.*

‡ *Included in Air Control Mounting Kit-Cart, page 39.*

Kits

Cart Mounting Kit

Kit 24E879 Includes the cart, mounting plate (30), and hardware for all pump sizes. Use to mount a bare pump on a cart. See details in kit parts list to determine the hardware needed for your pump.



⚠1 Apply high-strength thread locker approximately 0.25 in. on screw thread.

Ref.	Part	Description	Qty.
101	-----	CART, frame	1
102	-----	HANDLE, cart	1
103	119451	WHEEL, semi-pneumatic	2
104	119452	CAP, hub	2
105	-----	SLEEVE, cart handle	2
106	15C871	CAP, leg	2
107	115480	KNOB, t-handle	2
108	116630	SCREW, carriage	2
15	100023	WASHER	2
16		SCREW	2
	107557	M8 x 75, M04xxx motor	
	117080	M8 x 60, M07xxx motor	
17	111799	SCREW, M8 x 16	8
		M04xxx and M07xxx use only 6	
		M12xxx and M18xxx use all 8	
18	-----	SPACER	2
		M04xxx motor- use longer	
		M07xxx motor - use shorter	
30	-----	MOUNTING PLATE	1
58	104541	NUT, M8	4

Cart Floor Mounting Kit

Kit 24E885 includes two spacers. Remove the caps on the cart legs. Insert spacers to keep the legs stable when bolting the cart to the floor. Bolts not included.

Wall Mounting Kit

Includes mounting plate (30) and hardware (see **Mounting Hardware Kits**). Use to mount a bare pump on the wall.

Kit	Description	Air Motor on Package
24E880	Plate plus Mounting Hardware Kit 24E886	M04xxx
24E881	Plate plus Mounting Hardware Kit 24E887	M07xxx
24E882	Plate plus Mounting Hardware Kit 24E888	M12xxx or M18xxx

Mounting Hardware Kits

Includes all hardware needed for wall or cart mounting, but does not include the plate. Use for replacement parts.

Kit 24E886, packages with M04xxx motor

Ref	Part	Description	Qty.
15	100023	Washer	2
16	107557	Screw, M8 x 75	2
17	111799	Screw, M8 x 16	6
18	-----	Spacers	2
58	104541	LOCK NUT, M8	4

Kit 24E887, packages with M07xxx motor

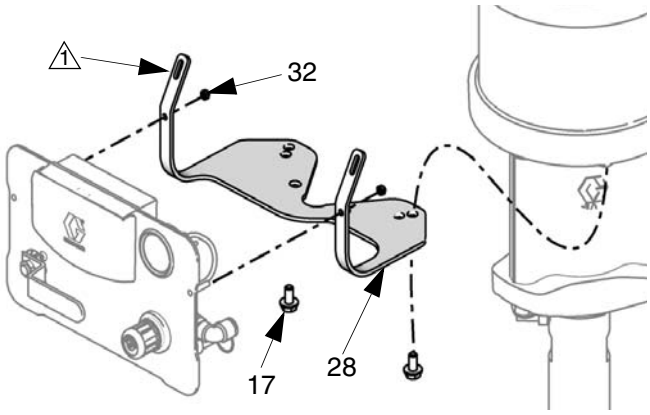
Ref	Part	Description	Qty.
15	100023	Washer	2
16	117080	Screw, M8 x 60	2
17	111799	Screw, M8 x 16	6
18	-----	Spacers	2
58	104541	LOCK NUT, M8	4

Kit 24E888, packages with M12xxx or M18xxx motor

Ref	Part	Description	Qty.
17	111799	Screw, M8 x 16	8
58	104541	LOCK NUT, M8	4

Air Control Mounting Kit-Wall

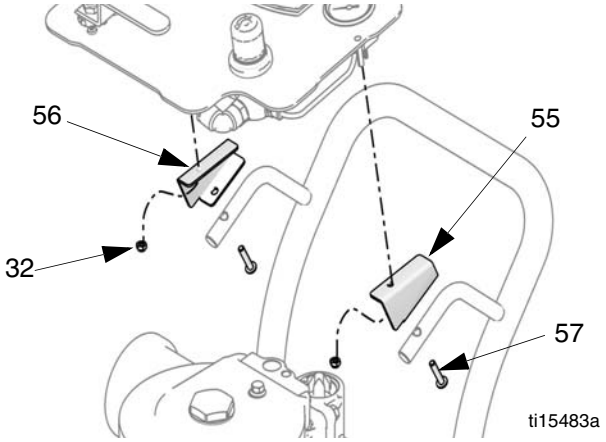
Kit 24E883 includes bracket (28), hex nuts (32), and screws (17). Use if adding air controls to a wall mount package, or for replacement parts.



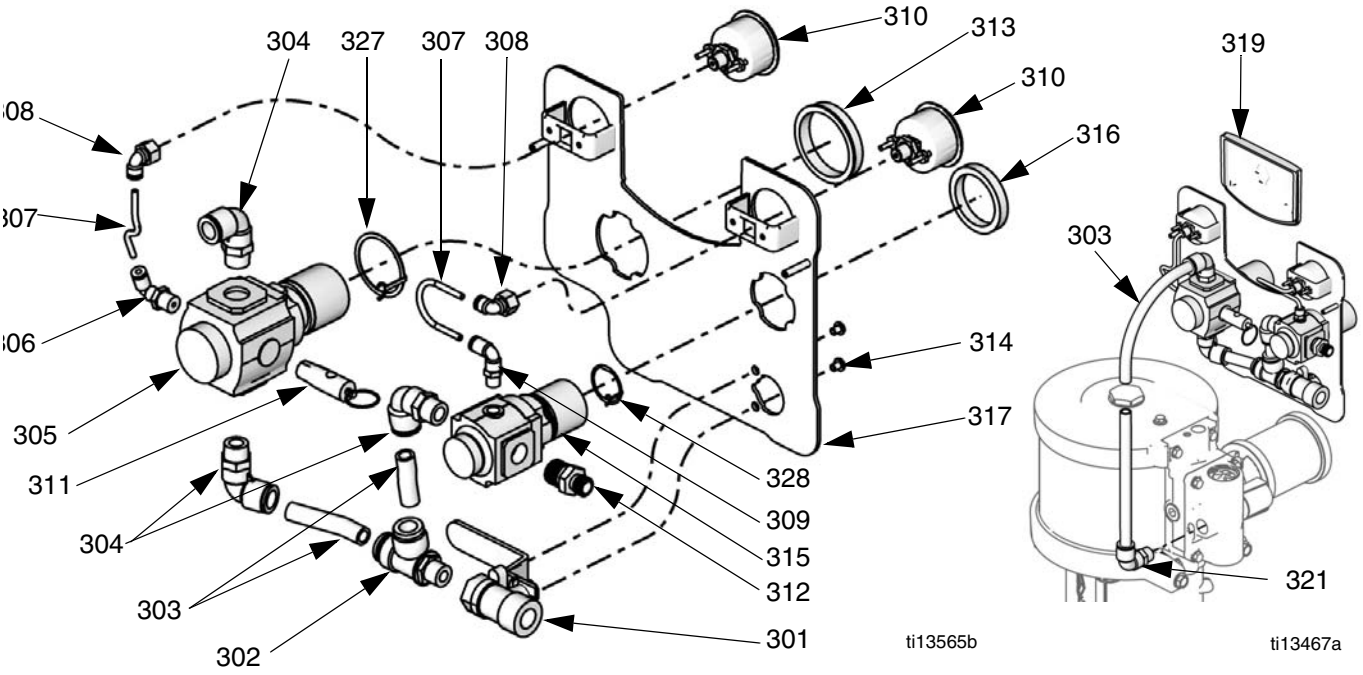
1 Use alternate mounting holes to mount the air controls at an angle on the bracket.

Air Control Mounting Kit-Cart

Kit 24E884 includes right and left mounting wedges (55 and 56), hex nuts (32) and screws (37). Use if adding air controls to a cart mount package, or for replacement parts.



Pump and Gun Control Panel Kits



M07xxx, M12xxx, and M18xxx air motors

Kits 24A581

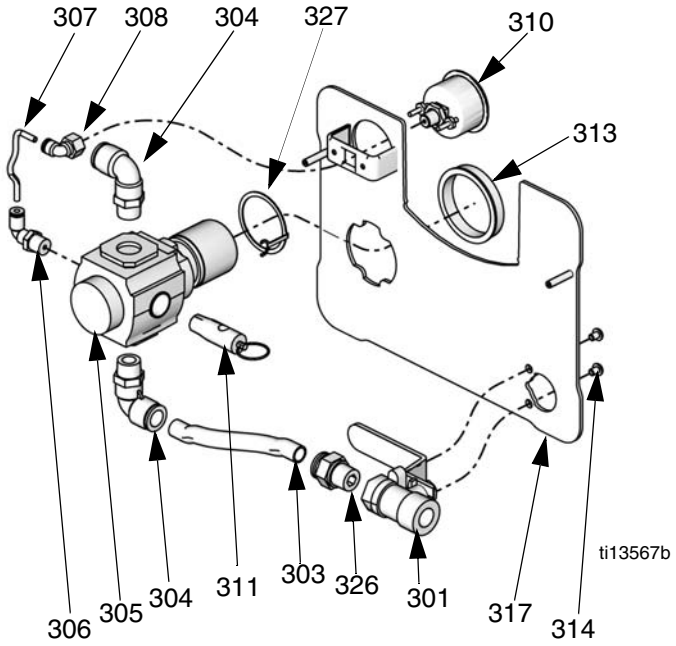
Ref.	Part	Description	Qty.
301	114362	VALVE, ball	1
302	15T643	SWIVEL, tee, 3/8 npt(m) x 1/2T	1
303	-----	TUBE, 1/2 OD, cut to fit, order Tubing Kit 24D496	1.3 ft.
304	121212	ELBOW, swivel, 1/2T x 3/8 npt(m)	3
305	15T536	REGULATOR, air, pump, 3/8 npt	1
306	-----	ELBOW, swivel, 5/32 T x 1/4 npt	1
307	-----	TUBE, black, cut to fit, order Tubing Kit 24D496	4 in.
308	-----	SWIVEL, 90°, 5/32T x 1/8 npt(f)	2
309	-----	ELBOW, swivel, 5/32T x 1/8 npt	1
310	15T500	GAUGE, pressure	2
311	113498	VALVE, pressure relief	1
312	164672	ADAPTER	1
313	15T538	NUT, regulator	1
314	114381	SCREW, cap, button head	2
315	15T539	REGULATOR, air, gun, 3/8 npt	1
316	116514	NUT, regulator	1
317	-----	PANEL	1
318	-----	LABEL, panel (not shown)	1
319	-----	INSERT	1
320	105332	NUT, lock (not shown)	2
321	-----	ELBOW, 1/2T x 1/2 npt	1
322	-----	COVER, lens, 12 sticker sheet (not shown), order Kit 24A540 for 5 sheets	1
327	24P814	RING, grounding	1
328	24P813	RING, grounding	1

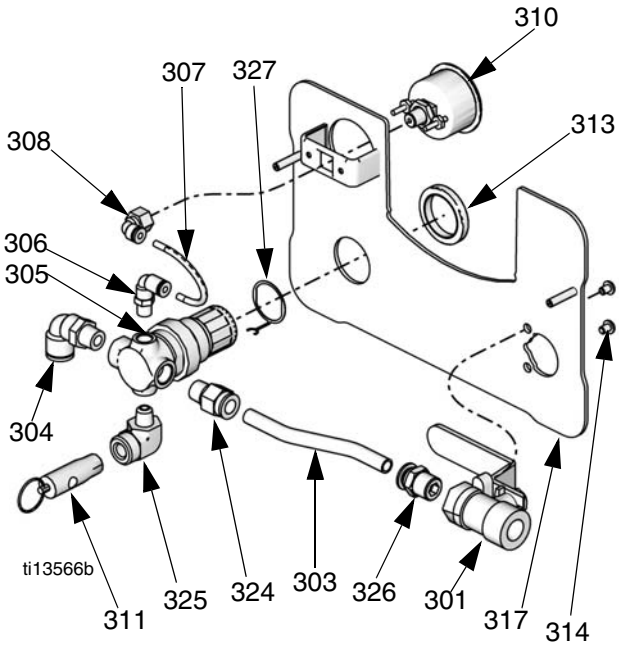
M04xxx air motors

Kit 24A585

Ref.	Part	Description	Qty.
301	114362	VALVE, ball	1
302	-----	SWIVEL, tee	1
303	-----	TUBE, 3/8 OD, cut to fit, order Tubing Kit 24D496	1.3 ft.
304	121141	ELBOW, swivel, 3/8T x 1/4 npt(m)	3
305	15T499	REGULATOR, air, pump, 1/4 npt	1
306	15T866	ELBOW, swivel, 5/32T x 1/8 npt	1
307	-----	TUBE, black, cut to fit, order Tubing Kit 24D496	4 in.
308	15T498	SWIVEL, 90°, 5/32T x 1/8 npt(f)	2
309	15T866	ELBOW, swivel, 5/32T x 1/8 npt	1
310	15T500	GAUGE, pressure	2
311	113498	VALVE, safety	1
312	162453	ADAPTER, 1/4 nps(m) x 1/4 npt	1
313	115244	NUT, regulator	2
314	114381	SCREW, cap, button head	2
315	15T499	REGULATOR, air, gun, 1/4 npt	1
316	115244	NUT, regulator	1
317	-----	PANEL	1
318	-----	LABEL, panel (not shown)	1
319	-----	INSERT	1
320	-----	NUT, lock (not shown)	2
321	121141	ELBOW, 3/8T x 1/4 npt(m)	1
322	-----	COVER, lens, 12 sticker sheet (not shown), order Kit 24A540 for 5 sheets	1
323	-----	ELBOW, 1/4 npt(f) x 1/8 npt(m)	1
327	24P812	RING, grounding	1
328	24P812	RING, grounding	1

Pump Only Control Panel Kits





M07xxx, M12xxx, and M18xxx air motors

Kit 24A583

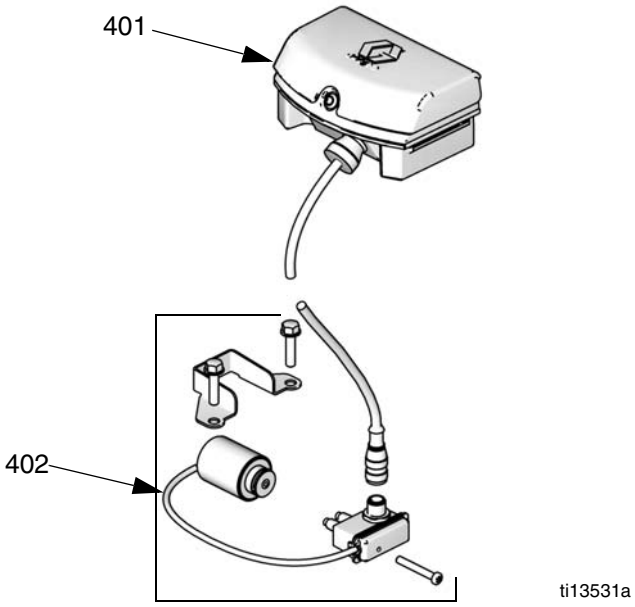
Ref.	Part	Description	Qty.
301	114362	VALVE, ball	1
303	-----	TUBE, 1/2 OD, cut to fit, order Tubing Kit 24D496	1.5 ft.
304	121212	ELBOW, swivel, 1/2T x 3/8 npt(m)	2
305	15T536	REGULATOR, air, 3/8 npt	1
306	-----	ELBOW, swivel, 5/32 T x 1/4 npt	1
307	-----	TUBE, black, cut to fit, order Tubing Kit 24D496	5 in.
308	-----	SWIVEL, 90°, 5/32T x 1/8 npt(f)	1
310	15T500	GAUGE, pressure	1
311	113498	VALVE, pressure relief	1
313	15T538	NUT, regulator	1
314	114381	SCREW, cap, button head	2
317	-----	PANEL	1
318	-----	LABEL, panel (not shown)	1
319	-----	INSERT (see inset illustration on page 40)	1
320	105332	NUT, lock (not shown)	2
321	-----	ELBOW, 1/2T x 1/2 npt (see inset illustration on page 40)	1
322	-----	COVER, lens, 12 sticker sheet (not shown), order Kit 24A540 for 5 sheets	1
326	-----	FITTING, straight, 1/2T x 3/8 npt(m)	1
327	24P814	RING, grounding	1

M04xxx air motors

Kit 24A586

Ref.	Part	Description	Qty.
301	114362	VALVE, ball	1
303	-----	TUBE, 3/8 OD, cut to fit, order Tubing Kit 24D496	1.3 ft.
304	121141	ELBOW, swivel, 3/8T x 1/4 npt(m)	1
305	-----	REGULATOR, air, 1/4 npt	1
306	-----	ELBOW, swivel, 5/32T x 1/8 npt	1
307	-----	TUBE, black, cut to fit, order Tubing Kit 24D496	4 in.
308	-----	SWIVEL, 90°, 5/32T x 1/8 npt(f)	1
309	-----	ELBOW, swivel, 5/32T x 1/8 npt	1
310	15T500	GAUGE, pressure	1
311	113498	VALVE, pressure relief	1
313	115244	NUT, regulator	1
314	114381	SCREW, cap, button head	2
317	-----	PANEL	1
318	-----	LABEL, panel (not shown)	1
319	-----	INSERT (see inset illustration on page 40)	1
320	105332	NUT, lock (not shown)	2
321	121141	ELBOW, swivel, 3/8T x 1/4 npt(m) (see inset illustration on page 40)	1
322	-----	COVER, lens, 12 sticker sheet (not shown), order Kit 24A540 for 5 sheets	1
323	-----	ELBOW, 1/4 npt(f) x 1/8 npt(m)	1
324	-----	FITTING, straight, 3/8T x 1/4 npt(m)	1
326	-----	FITTING, straight, 3/8T x 3/8 npt(m)	1
327	24P812	RING, grounding	1

DataTrak Kits



Ref. No.	Part No.	Description	Qty.
401	24B563	DATATRAK, module (includes Part 403)	1
402		SOLENOID/REED SWITCH, kit	1
	24B565	M04xxx air motors	
	24B566	M07xxx-M18xxx air motors	
403	-----	CLAMP, hose (not shown) Order kit 24A548 for package of 10	2
404▲	15V262	LABEL, warning (not shown)	1

----- *Not sold separately.*

▲ *Replacement Warning labels, signs, tags, and cards are available at no cost.*

DataTrak Replacement Parts Kits

Part No.	Description	Fits Air Motor Models
24B563	DataTrak Module	All
24B565	Solenoid/Reed Switch Assembly	M04LT0
24B566	Solenoid/Reed Switch Assembly	M07LT0 - M18LT0
24B564	Reed Switch Assembly	MxxLN0

DataTrak Conversion Kits

Part	Description	Fits NXT Air Motor Models	Air Valve Replacement Kit Required*
24A575	DataTrak with Runaway Protection Kit	M04LN0	24A353
		M04LT0	-----
24A576	DataTrak with Runaway Protection Kit	M07LN0–M18LN0	24A354
		M07LT0–M18LT0	-----
24A592	DataTrak with Cycle Count Only Kit	MxxLN0	-----

** Purchase and install the Air Valve Replacement Kit listed to make your MxxLN0 air motor compatible with DataTrak with Runaway Protection.*

Suction Hose Kits

Kit	Size	Parts Included	Fits Packages
5-Gallon			
256420	1/2 in.	Suction hose (4), reducing bushing (as needed) and strainer (5)	G15Bxx and G25Bxx (50cc)
256423	3/4 in.		G23Bxx and G35Bxx (100cc)
256424	1 in.		G15Bxx and G24Bxx (150cc)
55-Gallon			
24A954	3/4 in.	Suction hose, bung adapter, and strainer	G15Bxx, G23Bxx, G25Bxx, and G35Bxx (50cc and 100cc)
24B598	1 in.		G15Bxx and G24Bxx (150cc)
PTFE*			
24B424	3/4 in.	Suction hose, straight swivel, and strainer	G15Bxx, G23Bxx, G25Bxx, and G35Bxx (50cc and 100cc)
24B425	1 in.		G15Bxx and G24Bxx (150cc)

* *For pumping acid materials that are compatible with PTFE.*

Drain Valve Kit 256425

Includes drain valve (43), coupling (44), and hose (45).

Overflow Chamber Kit 24E298

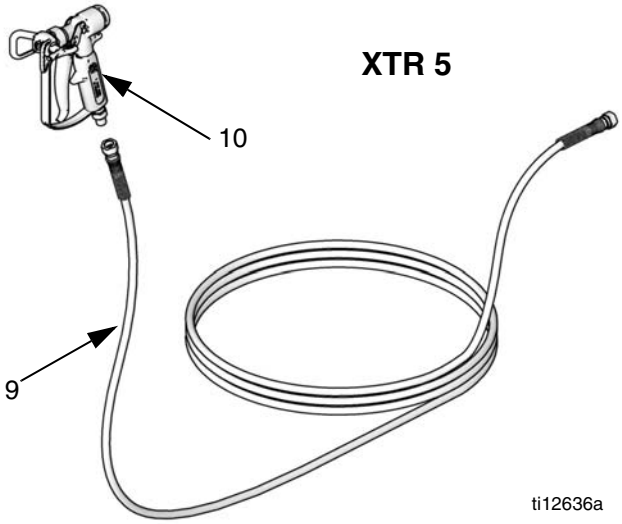
Includes overflow cup, with seals and necessary hardware.

Reinforced PTFE V-Packing Kits and PTFE Bellows Kits

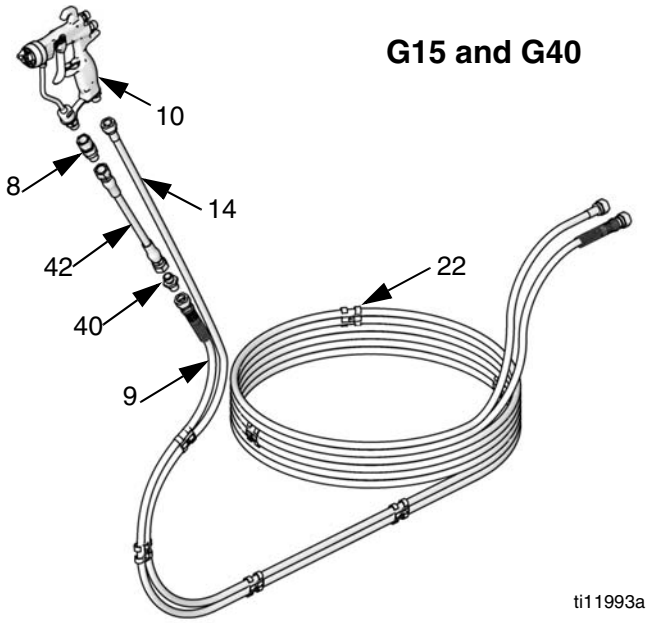
NOTE: See manual 312793 for information related to optional kits with reinforced PTFE seals and optional kits with PTFE bellows. These kits are intended for use with materials that cause chemical compatibility concerns with UHMWPE, such as acid catalyst materials.

Guns and Hoses

To find the correct parts for your model, locate the gun you have. The correct hoses and related parts are listed in the table below each gun.

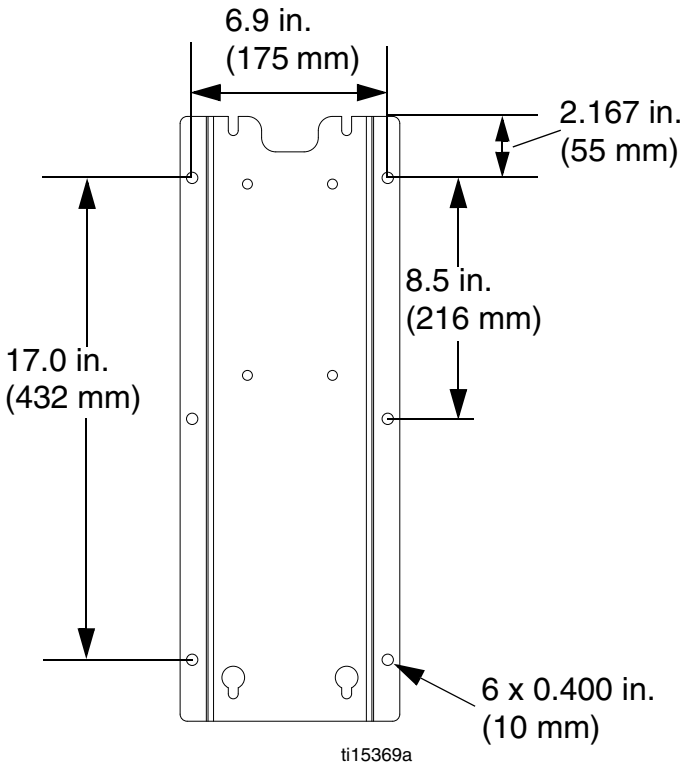


Ref.	Part	Description	Qty.
9	241812 24A446	HOSE, fluid G05xxx-G24xxx, 25 ft (7.6 m), 3300 psi (22.7 MPa, 227 bar) maximum working pressure G35xxx, 23 ft (7 m), 4100 psi (28.3 MPa, 283 bar) maximum working pressure	1
10	XTR501	GUN	1
40	166846	ADAPTER, for whip hose	1
42	239069	HOSE, whip (G35xxx packages only); see G40 illustration at right), 2 ft (0.6m); 4100 psi (28.3 MPa, 283 bar) maximum working pressure	1



Ref.	Part	Description	Qty.
8	189018	SWIVEL, fluid hose	1
9	241812 24A446	HOSE, fluid G05xxx-G24xxx, 25 ft (7.6 m), 3300 psi (22.7 MPa, 227 bar) maximum working pressure G35xxx, 23 ft (7 m); 4100 psi (28.3 MPa, 283 bar) maximum working pressure	1
10	24C855	GUN, G40	1
	24C853	GUN, G15	1
11	AAM413	TIP	1
12	AAMxxx	TIP, option, see gun manual	1
14	256390	HOSE, air, 27 ft (8.2 m); 100 psi (0.7 MPa, 7 bar) maximum working pressure	1
22	24A588	CLIP, hose; package of 10	1
40	166846	ADAPTER, for whip hose	1
42	239069	HOSE, whip (G35xxx packages only); 2 ft (0.6m); 4100 psi (28.3 MPa, 283 bar) maximum working pressure	1

Mounting Plate Dimensions



Technical Data

Maximum fluid working pressure	See **Models** tables on pages 9-13.
Maximum fluid inlet pressure	15 psi (0.1 MPa, 1.0 bar)
Maximum pump air inlet pressure.	100 psi (0.7 MPa, 7.0 bar)
Minimum air inlet pressure	10 psi (0.07 MPa, 0.7 bar)
Maximum gun air inlet pressure	100 psi (0.7 MPa, 7.0 bar)
Ratio	See **Models** tables on pages 9-13.
Maximum fluid temperature	120°F (49°C)
Ambient temperature range	35°–120°F (2°–49°C)
Weight.	See **Models** tables on pages 9-13.
Sound data	See Technical Data in NXT Air Motor manual.*
Wetted parts	PEEK, PTFE, stainless steel, tungsten carbide, UHMWPE

* See **Related Manuals**, page 3, for manual number.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.
Phone: 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.

Original instructions. *This manual contains English. MM 312799*

Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA

Copyright 2010, Graco Inc. All Graco manufacturing locations are registered to ISO 9001.

www.graco.com
Revision L - July 2014